

Free checklist from Deepseal · [usedeepseal.com/hvac-installation-checklist](https://usedeepseal.com/hvac-installation-checklist) · Version: September 2026 · Targets follow ANSI/ACCA 5 QI-2015 (the Quality Installation specification), the 2021 IRC, IMC and IFGC, and the start-up sheets in the Carrier, Goodman, Trane, Lennox and Mitsubishi installation manuals. The manual for the unit in front of you, the nameplate and the local code override every number printed here. This sheet does not replace them or the permit.

## HVAC Installation Checklist

|                              |                                                                                                                                                                                                                                                       |                              |                                                                            |
|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------------------------------------------------------|
| <b>Customer · site</b>       | [Customer] · [Street, City, State ZIP] · [Phone]                                                                                                                                                                                                      | <b>Date · installer(s)</b>   | [Date] · [Names]                                                           |
| <b>Job type</b>              | <input type="checkbox"/> Split AC <input type="checkbox"/> Heat pump <input type="checkbox"/> Dual fuel <input type="checkbox"/> Gas furnace <input type="checkbox"/> Ductless <input type="checkbox"/> Change-out <input type="checkbox"/> New ducts | <b>Permit · jurisdiction</b> | No. [ ] · [City / county] · inspection booked [date]                       |
| <b>Equipment removed</b>     | [Make · model · serial] · refrigerant recovered [ ] lb [type]                                                                                                                                                                                         | <b>Outdoor unit</b>          | [Make · model · serial] · mfg date [ ]                                     |
| <b>Indoor unit · furnace</b> | [Make · model · serial] · coil [model]                                                                                                                                                                                                                | <b>AHRI reference</b>        | [ ] · SEER2 [ ] · HSPF2 [ ] · AFUE [ ]                                     |
| <b>Refrigerant</b>           | <input type="checkbox"/> R-410A <input type="checkbox"/> R-454B <input type="checkbox"/> R-32 <input type="checkbox"/> Other [ ] · factory charge [ ] lb [ ] oz · total charge on label [ ]                                                           | <b>Thermostat</b>            | [Make · model] · <input type="checkbox"/> Heat pump mode · O/B setting [ ] |

How to use this sheet: sections A to H on every job. Appendix A for every heat pump and dual-fuel job. Appendix B for every gas furnace and dual-fuel job. Appendix C on every job. Fill every reading cell; a blank cell reads as "not measured" to the inspector, to the customer and to the tech who does the first maintenance visit.

### A. Design and paperwork, before the truck rolls

| Task                                                                                                                                                                                                                                                                   | Reading / target                                                                                                                                                                                                                       | Result                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Manual J load calculation on file: block calculation for a change-out with no duct changes, room-by-room for new or modified ducts (ACCA 5 QI §3.2). Floor and window areas within 10% of the measured house, orientation within 45° (ACCA 9) | Heating [ ] Btuh · cooling [ ] total / [ ] sensible · design temps [ ] / [ ] °F                                                                                                                                                        | <input type="checkbox"/> On file <input type="checkbox"/> Done today<br><input type="checkbox"/> Original still valid       |
| <input type="checkbox"/> Manual S equipment selection: capacity ÷ Manual J load inside the limits                                                                                                                                                                      | Cooling ratio [ ] · heating ratio [ ]<br>Cooling: single-speed 0.90 to 1.15 · two-speed to 1.20 · variable to 1.30 · furnace 1.00 to 1.40 · variable heat pump heating at least 1.00, minimum speed no more than 0.80 of the heat loss | <input type="checkbox"/> In range <input type="checkbox"/> Exception noted                                                  |
| <input type="checkbox"/> Matched system: AHRI reference number found at <a href="https://ahridirectory.org">ahridirectory.org</a> , certificate printed for the file (QI §3.5)                                                                                         | AHRI ref [ ]                                                                                                                                                                                                                           | <input type="checkbox"/> Printed                                                                                            |
| <input type="checkbox"/> Duct design (Manual D) or existing-duct assessment; design airflow and design external static written down so the field reading has something to compare to                                                                                   | Design ESP [ ] in wc · design airflow [ ] CFM                                                                                                                                                                                          | <input type="checkbox"/> New ducts <input type="checkbox"/> Existing, unchanged <input type="checkbox"/> Existing, modified |
| <input type="checkbox"/> Mechanical permit pulled (IRC R105.1); emergency change-outs applied for by the next working day (R105.2.1)                                                                                                                                   | Permit no. [ ]                                                                                                                                                                                                                         | <input type="checkbox"/> Pulled <input type="checkbox"/> Not required, reason [ ]                                           |

| Task                                                                                                                                                                                                                      | Reading / target                  | Result                                                                |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-----------------------------------------------------------------------|
| <input type="checkbox"/> Refrigerant confirmed: A2L units (R-454B, R-32) need the matched indoor unit and the leak-detection parts; R-410A equipment installed in 2026 must have been manufactured before January 1, 2025 | Mfg date on outdoor nameplate [ ] | <input type="checkbox"/> A2L <input type="checkbox"/> R-410A, date OK |
| <input type="checkbox"/> Ventilation calculation where the job changes the envelope or adds mechanical ventilation (QI §3.1, ASHRAE 62.2)                                                                                 | [ ] CFM required                  | <input type="checkbox"/> Done <input type="checkbox"/> n/a            |

## B. Outdoor unit placement

| Task                                                                                                                                                      | Reading / target                                                                                                                                                                                    | Result                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|
| <input type="checkbox"/> Shipping damage checked; model matches the order and the AHRI match; nameplate photographed                                      |                                                                                                                                                                                                     | <input type="checkbox"/> OK <input type="checkbox"/> Damage noted [ ] |
| <input type="checkbox"/> Pad or bracket level and secured; unit level; pad sloped away from the house                                                     | Out of level [ ]°<br>Carrier: within $\pm 2^\circ$ (3/8 in per ft) ·<br>Lennox: pad slope no more than $2^\circ$                                                                                    | <input type="checkbox"/> OK                                           |
| <input type="checkbox"/> Clearances per the install manual: service side, other sides, above the fan discharge, between units                             | Service [ ] in · sides [ ] / [ ] in · above [ ] in<br>Carrier: 24 in service end, 48 in above, 6 and 12 in sides, 24 in between units · Goodman: 60 in above · Trane: 5 ft above, 3 ft service side | <input type="checkbox"/> Meets manual                                 |
| <input type="checkbox"/> Heat pumps: raised above snow and defrost water, not over a walkway, risers or stand secured, roof runoff and drip lines avoided | Height above grade [ ] in<br>Trane: raise 3 to 12 in where snow collects · Efficiency Maine: 18 in above the snow line                                                                              | <input type="checkbox"/> OK <input type="checkbox"/> n/a              |
| <input type="checkbox"/> Away from the dryer vent, bedroom windows and the furnace or water heater exhaust; vibration pads where used                     |                                                                                                                                                                                                     | <input type="checkbox"/> OK                                           |

## C. Refrigerant piping

| Task                                                                                                                                                                                                                                                    | Reading / target                                                                                                                                                                                               | Result                                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| <input type="checkbox"/> Line sizes per the manual for this length; total length and vertical lift inside the standard-line limits, or the long-line accessories fitted (TXV, crankcase heater, hard start, bi-flow solenoid where the manual requires) | Liquid [ ] in · suction [ ] in · length [ ] ft · lift [ ] ft<br>Standard-line limits: Carrier 80 ft or 20 ft lift · Goodman 79 ft or 50 ft lift · Trane 60 ft · Lennox 50 ft · Mitsubishi 65 to 100 ft by size | <input type="checkbox"/> Standard <input type="checkbox"/> Long line, kit fitted |
| <input type="checkbox"/> Existing line set flushed or replaced; kinks, crushed sections and old joints inspected; new set where the old one fails or the refrigerant changes                                                                            |                                                                                                                                                                                                                | <input type="checkbox"/> New <input type="checkbox"/> Reused, flushed            |
| <input type="checkbox"/> Brazed with nitrogen flowing; factory liquid-line filter drier installed (Carrier: always); A2L joint sleeves where the manufacturer requires them                                                                             | Alloy [ ]<br>Goodman: 2% silver minimum                                                                                                                                                                        | <input type="checkbox"/> Done                                                    |

| Task                                                                                                                                                                                                                                       | Reading / target                                                                                                           | Result                                                     |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|
| <input type="checkbox"/> Suction line insulated full length, at least R-3 (IRC M1411.6); outdoor insulation protected from sunlight, adhesive tape not used as the covering (N1103.4.1); line-hide fitted where exposed                    | Insulation wall [ ] in                                                                                                     | <input type="checkbox"/> OK                                |
| <input type="checkbox"/> Lines supported within 6 ft of the outdoor unit (M1411.8) and along the run; nothing touching the cabinet or each other; wall penetration sealed and sloped down to the outside; no coiled excess, or coiled flat |                                                                                                                            | <input type="checkbox"/> OK                                |
| <input type="checkbox"/> Locking tamper-resistant caps on the outdoor service ports (M1411.9); service valve caps tightened                                                                                                                | Lennox: 8 ft-lb · Carrier: 1/12 turn past finger tight                                                                     | <input type="checkbox"/> On                                |
| <input type="checkbox"/> Ductless flares: cut new, oiled, torqued to the table, leak checked                                                                                                                                               | 1/4 in [ ] · 3/8 in [ ] · 1/2 in [ ] · 5/8 in [ ] ft-lb<br><br>Mitsubishi: 10 to 13 · 25 to 30 · 36 to 42 · 54 to 58 ft-lb | <input type="checkbox"/> Done <input type="checkbox"/> n/a |

#### D. Pressure test and evacuation

| Task                                                                                                                                                                                                            | Reading / target                                                                                                                                                                                                                                             | Result                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Nitrogen pressure test to the manufacturer's value and hold time; every joint bubble- or detector-checked; no drop                                                                     | [ ] psig · held [ ] min · drop [ ] psi<br>Carrier: about 200 psi, 1 hour · Goodman: 450 psig, 15 min · Trane: 150 psig · Lennox: 160 psig with trace refrigerant · Efficiency Maine: 600 psig, 10 min                                                        | <input type="checkbox"/> Pass <input type="checkbox"/> Leak at [ ]                                         |
| <input type="checkbox"/> Evacuation with a micron gauge on the system, never read off the manifold (Mitsubishi); pump able to hold 500 microns (QI Appendix C); nitrogen breaks where the manual calls for them | Reached [ ] microns · pump run [ ] min                                                                                                                                                                                                                       | <input type="checkbox"/> Done                                                                              |
| <input type="checkbox"/> Decay test: pump isolated, gauge watched for the manufacturer's time                                                                                                                   | Start [ ] microns · after [ ] min: [ ] microns<br>Carrier: no rise above 1500 in 10 min · Goodman: below 1000 and steady after 10 min · Trane: from 350, no rise above 500 in 1 min · Lennox: no rise above 500 in 20 min · Mitsubishi: holds 500 for 1 hour | <input type="checkbox"/> Pass <input type="checkbox"/> Moisture, re-evacuate <input type="checkbox"/> Leak |
| <input type="checkbox"/> Charge released, or weighed in for the line length; total charge written on the outdoor unit label (Carrier, Lennox)                                                                   | Factory [ ] lb [ ] oz · added [ ] oz · total [ ]                                                                                                                                                                                                             | <input type="checkbox"/> On label                                                                          |

#### E. Electrical

| Task                                                                                                                                                                                | Reading / target                                          | Result                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------|
| <input type="checkbox"/> Nameplate MCA and maximum overcurrent device read; conductor ampacity at or above MCA; breaker at or below the nameplate maximum, HACR type (NEC 440.4(B)) | MCA [ ] A · max OCPD [ ] A · wire [ ] AWG · breaker [ ] A | <input type="checkbox"/> OK <input type="checkbox"/> Corrected |

| Task                                                                                                                                                                                                                   | Reading / target                                                        | Result                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Disconnect within sight of the unit and readily accessible (NEC 440.14; within sight means visible and no more than 50 ft); working space kept clear                                          | Distance [ ] ft                                                         | <input type="checkbox"/> OK                                                                           |
| <input type="checkbox"/> Weatherproof whip or liquid-tight conduit from the disconnect; strain relief; equipment ground landed; bonding per NEC (QI §4.4)                                                              |                                                                         | <input type="checkbox"/> OK                                                                           |
| <input type="checkbox"/> 125 V service receptacle within 25 ft on the same level (NEC 210.63), GFCI protected                                                                                                          |                                                                         | <input type="checkbox"/> Present <input type="checkbox"/> Added <input type="checkbox"/> Not required |
| <input type="checkbox"/> Supply voltage at the unit, running; wire sized for no more than 2% drop (Goodman)                                                                                                            | L1-L2 [ ] V · nameplate [ ] V<br>Goodman 208/230 V units: 197 to 253 V  | <input type="checkbox"/> In range                                                                     |
| <input type="checkbox"/> Running amps against nameplate RLA and FLA (Lennox start-up sheet)                                                                                                                            | Comp [ ] / RLA [ ] · OD fan [ ] / [ ] · blower [ ] / [ ] · strips [ ] A | <input type="checkbox"/> OK                                                                           |
| <input type="checkbox"/> Control voltage; transformer at least 40 VA on 24 V (Carrier, Lennox); common wire to the thermostat; factory and field terminations tight, wires routed clear of rubbing (Carrier checklist) | R-C [ ] V                                                               | <input type="checkbox"/> OK                                                                           |
| <input type="checkbox"/> Crankcase heater powered 24 hours before the compressor is first run (Carrier); breaker labeled at the panel                                                                                  | Power on [date, time]                                                   | <input type="checkbox"/> Done                                                                         |

## F. Indoor unit and condensate

| Task                                                                                                                                                                                                                                                                                                                         | Reading / target                                                         | Result                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------------------------------------------------------|
| <input type="checkbox"/> Unit level and supported; secondary drain pan under attic and horizontal units, at least 1.5 in deep and 3 in larger than the unit, with its own drain to a conspicuous point or a float switch (IRC M1411.3.1)                                                                                     |                                                                          | <input type="checkbox"/> OK <input type="checkbox"/> n/a       |
| <input type="checkbox"/> Primary drain: trap per the manufacturer (IMC 307.2.4), 3/4 in minimum (307.2.2), slope at least 1/8 in per ft (307.2.1; Goodman air handlers 1/4 in per ft), no direct connection to a plumbing drain (307.2.1.1), cleanout, terminations marked; ductless: inline check valve or trap (307.2.4.1) | Slope [ ] in per ft · drains to [ ]                                      | <input type="checkbox"/> OK                                    |
| <input type="checkbox"/> Water poured into the pan drains freely (Trane checkout list); float switch tripped and the unit shut down                                                                                                                                                                                          |                                                                          | <input type="checkbox"/> Pass <input type="checkbox"/> Fail    |
| <input type="checkbox"/> A2L equipment: leak detection system installed and run in test mode; unit stays powered except for service (Goodman); no operation until detection is verified (Lennox); room meets the minimum floor area on the charge label; dissipation board or non-A2L furnace kit where required             | Test mode <input type="checkbox"/> · min area [ ] sq ft · room [ ] sq ft | <input type="checkbox"/> Verified <input type="checkbox"/> n/a |
| <input type="checkbox"/> Filter installed; size and MERV recorded; rack sealed; access door gasketed                                                                                                                                                                                                                         | [ ] × [ ] × [ ] · MERV [ ]                                               | <input type="checkbox"/> Done                                  |
| <input type="checkbox"/> Plenums and transitions sealed with UL 181 mastic or                                                                                                                                                                                                                                                |                                                                          | <input type="checkbox"/> OK                                    |

| Task                                        | Reading / target | Result |
|---------------------------------------------|------------------|--------|
| tape; panels on; blower door switch working |                  |        |

## G. Ducts and airflow

| Task                                                                                                                                    | Reading / target                                                                                                                                                                                             | Result                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| <input type="checkbox"/> Duct leakage on new or modified ducts, tested at 25 Pa; sealants listed to UL 181A or 181B (QI §5.1)           | Total [ ] CFM25 · [ ] % of airflow<br>QI new: 10% with all ducts inside, 6% with any duct outside · existing: 20% or a 50% improvement · IRC N1103.3.6: 4 CFM25 per 100 sq ft                                | <input type="checkbox"/> Pass <input type="checkbox"/> n/a, ducts unchanged |
| <input type="checkbox"/> Total external static pressure with the filter in; test ports drilled, plugged and marked                      | Return [ ] · supply [ ] · TESP [ ] in wc · nameplate max [ ] · design [ ]<br>QI: inside the manufacturer's range, and no more than 25% or 0.10 in wc over the design ESP · Goodman furnaces: about 0.5 in wc | <input type="checkbox"/> In range <input type="checkbox"/> High             |
| <input type="checkbox"/> Cooling airflow measured at the design fan setting, never by temperature rise (QI §4.1)                        | [ ] CFM · [ ] CFM per ton · design [ ]<br>QI: within 15% of design; typically 350 to 450 CFM per ton                                                                                                         | <input type="checkbox"/> Pass <input type="checkbox"/> Tap changed          |
| <input type="checkbox"/> Blower taps or ECM profile set for cooling, heating and dehumidification per the manual                        | Cool [ ] · heat [ ] · dehum <input type="checkbox"/>                                                                                                                                                         | <input type="checkbox"/> Set                                                |
| <input type="checkbox"/> Room airflows on new or modified ducts; dampers balanced (QI §5.2)                                             | Worst room [ ] / design [ ] CFM<br>Within 20% or 25 CFM, whichever is greater                                                                                                                                | <input type="checkbox"/> Pass <input type="checkbox"/> n/a                  |
| <input type="checkbox"/> Registers and grilles open; return path from every room that closes (undercut, jumper duct or transfer grille) |                                                                                                                                                                                                              | <input type="checkbox"/> OK                                                 |

## H. Refrigerant charge and cooling start-up readings

| Task                                                                                                                                                                                                                                                                                                            | Reading / target                                                                                                                              | Result                                                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Conditions for a charge check: airflow verified first (QI §4.3); outdoor at least 60°F for subcooling, 55°F for superheat; Goodman: TESP at or under 0.5 in wc; run 15 minutes before reading (ENERGY STAR commissioning checklist); Carrier: wait 20 minutes for subcooling to settle | Outdoor DB [ ] °F · indoor DB [ ] / WB [ ] °F · run time [ ] min                                                                              | <input type="checkbox"/> Met <input type="checkbox"/> Too cold: weigh in, recheck in season |
| <input type="checkbox"/> Pressures and line temperatures                                                                                                                                                                                                                                                        | Suction [ ] psig / line [ ] °F · liquid [ ] psig / line [ ] °F                                                                                |                                                                                             |
| <input type="checkbox"/> Subcooling (TXV or EEV) or superheat (fixed orifice) against the manufacturer's target                                                                                                                                                                                                 | SC [ ] °F vs target [ ] · SH [ ] °F vs target [ ]<br>QI: subcooling within ±3°F, superheat within ±5°F of the OEM value · Goodman TXV: 6°F ±1 | <input type="checkbox"/> In tolerance <input type="checkbox"/> Adjusted [ ] oz              |
| <input type="checkbox"/> Charge added for line length beyond the factory                                                                                                                                                                                                                                        | Extra length [ ] ft · added [ ] oz                                                                                                            | <input type="checkbox"/> On label                                                           |

| Task                                                                                                                                                                                                    | Reading / target                                                                                               | Result                                                                   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| allowance, before fine-tuning                                                                                                                                                                           | Carrier, Goodman: 0.6 oz per ft of 3/8 in liquid line beyond 15 ft · Mitsubishi: 1.08 oz per 5 ft beyond 25 ft |                                                                          |
| <input type="checkbox"/> Coil temperature drop, return to supply, after 15 minutes                                                                                                                      | Return [ ] °F · supply [ ] °F · drop [ ] °F<br>Lennox: 18 to 22°F                                              | <input type="checkbox"/> In range                                        |
| <input type="checkbox"/> Every mode cycled from the thermostat: cool, heat, fan; high and low pressure safeties and condensate switch proven; outdoor fan observed through a cycle; noise and vibration |                                                                                                                | <input type="checkbox"/> All modes OK <input type="checkbox"/> Fault [ ] |

## Appendix A: Heat pump section

Every heat pump and dual-fuel job, on top of sections A to H.

| Task                                                                                                                                                                                                                                       | Reading / target                                                                                                                                                                                | Result                                                                      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| <input type="checkbox"/> Thermostat set up as a heat pump: O or B reversing-valve output matches the unit (Carrier: R to O energizes the valve to cooling); stages and auxiliary heat type configured                                      | Stat [ ] · O/B [ ]                                                                                                                                                                              | <input type="checkbox"/> Verified in both modes                             |
| <input type="checkbox"/> Reversing valve heard shifting; heating mode run and the supply temperature recorded                                                                                                                              | Heating return [ ] °F · supply [ ] °F                                                                                                                                                           | <input type="checkbox"/> OK                                                 |
| <input type="checkbox"/> Forced defrost run and watched to termination (Carrier: short the speed-up pins 5 s · Trane: FRC_DFT to TEST_COMMON 2 s, ends at 47°F coil by default); defrost interval set for the climate                      | Interval [ ] min · termination [ ] °F                                                                                                                                                           | <input type="checkbox"/> Completed                                          |
| <input type="checkbox"/> Auxiliary heat staged behind the compressor; lockout set so backup runs only when the compressor cannot carry the load (IRC N1103.1.2)                                                                            | Lockout [ ] °F · balance point [ ] °F<br>BPA: lockout at, or 5°F above, the balance point · PTCS: backup only at or below 35°F · dual fuel switchover 35 to 40°F · no compressor lockout        | <input type="checkbox"/> Set <input type="checkbox"/> Program value [ ]     |
| <input type="checkbox"/> Electric strips: kW and amps per stage, sequencer order, emergency heat tested from the thermostat                                                                                                                | [ ] kW · stage 1 [ ] A · stage 2 [ ] A                                                                                                                                                          | <input type="checkbox"/> OK <input type="checkbox"/> n/a                    |
| <input type="checkbox"/> Charge below the outdoor minimum: weighed in for the line length (Trane: weigh in, heating mode) and flagged for a cooling-season recheck                                                                         | Recheck due [month]                                                                                                                                                                             | <input type="checkbox"/> Weighed <input type="checkbox"/> Checked in season |
| <input type="checkbox"/> Cold-climate jobs: unit on the ENERGY STAR cold-climate or NEEP list; capacity at 5°F covers the design load or the backup is sized for the gap; base-pan heater where offered; defrost water has somewhere to go | Capacity at 5°F [ ] Btuh · COP at 5°F [ ]<br>ENERGY STAR v6.2 cold climate: COP at 5°F at least 1.75, capacity at 5°F at least 70% of the 47°F rating                                           | <input type="checkbox"/> Listed <input type="checkbox"/> n/a                |
| <input type="checkbox"/> Program paperwork: AHRI certificate, load calc PDF, time-stamped photos, permit, sizing inside the program's band                                                                                                 | Program [ ] · sizing [ ] % of heating load<br>Mass Save: 90 to 120% · NYS Clean Heat: at least 100%, letter over 120%<br>· PTCS: backup locked out above 35°F, airflow at least 325 CFM per ton | <input type="checkbox"/> Submitted <input type="checkbox"/> n/a             |

## Appendix B: Gas furnace section

Every gas furnace and dual-fuel job, on top of sections A, E, F and G. Sections C, D and H apply only when a coil goes in with it.

| Task                                                                                                                                                                                                                                                                                                                            | Reading / target                                                                                                                                                                                                                                                                            | Result                                                                    |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| <input type="checkbox"/> Gas piping pressure tested and purged before the furnace is connected (IRC G2417: at least 1.5 times the working pressure and at least 3 psig, for at least 10 minutes; local rules may be stricter)                                                                                                   | [ ] psig · [ ] min                                                                                                                                                                                                                                                                          | <input type="checkbox"/> Pass <input type="checkbox"/> Witnessed          |
| <input type="checkbox"/> Sediment trap downstream of the shutoff, as close to the furnace inlet as practical (NFPA 54-2024 9.6.8.1); shutoff in the same room within 6 ft (G2420.5.1); union; listed connector no longer than 6 ft, one per appliance (G2422.1.2.1); black pipe at the cabinet with a 1/8 in test tap (Carrier) |                                                                                                                                                                                                                                                                                             | <input type="checkbox"/> OK                                               |
| <input type="checkbox"/> Every joint leak checked with soap or an electronic detector, never a flame (Carrier)                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                             | <input type="checkbox"/> No leaks                                         |
| <input type="checkbox"/> Inlet gas pressure with the furnace and every other gas appliance running (Carrier checklist)                                                                                                                                                                                                          | [ ] in wc<br>Goodman: natural gas 4.5 to 10.0 · propane 11.0 to 13.0 in wc                                                                                                                                                                                                                  | <input type="checkbox"/> In range <input type="checkbox"/> Utility called |
| <input type="checkbox"/> Manifold pressure at high and low fire against the rating plate; orifices match the gas and altitude                                                                                                                                                                                                   | High [ ] · low [ ] · plate [ ] in wc<br>Goodman: NG 3.5, LP 10.0, within ±0.3 · two-stage LP low fire 6.0 · Carrier example: 3.4 high, 1.4 low                                                                                                                                              | <input type="checkbox"/> OK <input type="checkbox"/> Adjusted             |
| <input type="checkbox"/> Firing rate clocked at the meter or by combustion analysis (QI §4.5)                                                                                                                                                                                                                                   | [ ] Btuh vs nameplate [ ]<br>Within ±5% of nameplate input                                                                                                                                                                                                                                  | <input type="checkbox"/> In range                                         |
| <input type="checkbox"/> Temperature rise at steady state, high and low fire, probe placed where it cannot see the heat exchanger                                                                                                                                                                                               | Return [ ] · supply [ ] · rise [ ] °F · plate [ ] to [ ] °F<br>Inside the nameplate range; Carrier: midpoint or slightly above                                                                                                                                                              | <input type="checkbox"/> OK <input type="checkbox"/> Blower tap changed   |
| <input type="checkbox"/> Combustion air for non-direct-vent furnaces: room volume or openings per IRC G2407                                                                                                                                                                                                                     | Input [ ] Btuh · room [ ] cu ft · openings [ ] sq in each<br>50 cu ft per 1,000 Btuh of room volume · two outdoor openings at 1 sq in per 4,000 Btuh each · one opening at 1 sq in per 3,000                                                                                                | <input type="checkbox"/> OK <input type="checkbox"/> Direct vent, n/a     |
| <input type="checkbox"/> Condensing (Category IV) venting: pipe size and equivalent length inside the manufacturer's table; sloped back to the furnace; supported; terminations clear                                                                                                                                           | Dia [ ] in · length [ ] ft · elbows [ ] · table max [ ] ft<br>Carrier 59TP6C: slope 1/4 in per ft toward the furnace · 12 in above grade or snow · 12 in from an openable window above 50 kBtuh · 3 ft from a gas meter within 15 ft above it · 3 ft above a mechanical intake within 10 ft | <input type="checkbox"/> OK <input type="checkbox"/> n/a                  |

| Task                                                                                                                                                                                                                                                                                      | Reading / target                                                                                                                                       | Result                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Standard (Category I) venting: connector rise, screws, clearances, chimney or liner sized for the new load; an orphaned water heater on the old chimney checked (ACCA 9)                                                                                         | 1/4 in per ft rise · 3 screws per joint · 6 in single-wall and 1 in B-vent to combustibles · single-wall connector no more than 75% of the vent height | <input type="checkbox"/> OK <input type="checkbox"/> Orphaned WH, liner quoted <input type="checkbox"/> n/a |
| <input type="checkbox"/> Combustion analysis in the flue after 5 minutes of main burner operation, high fire and low fire                                                                                                                                                                 | CO [ ] ppm air-free · O2 [ ] % · stack [ ] °F<br>IFGC Appendix D: central furnace CO at or below 400 ppm air-free, and stable                          | <input type="checkbox"/> Pass <input type="checkbox"/> Adjusted <input type="checkbox"/> Shut down          |
| <input type="checkbox"/> Draft and spillage: no spillage at the draft hood after 5 minutes (Cat I); pressure switch proves; flame steady when the blower starts                                                                                                                           |                                                                                                                                                        | <input type="checkbox"/> OK                                                                                 |
| <input type="checkbox"/> Safeties: high limit tested by restricting return air (IFGC Appendix D); rollout switches; flame sensor signal; door switch                                                                                                                                      | Flame [ ] µA<br>Goodman: 1 to 4 µA                                                                                                                     | <input type="checkbox"/> OK                                                                                 |
| <input type="checkbox"/> Condensing furnace condensate: sloped 1/4 in per ft away (Carrier), trapped, pump rated for acidic condensate (pH about 3 to 5), neutralizer where the drain material or local code needs it, auxiliary pan where a clog would damage the building (IRC M1411.5) | Drains to [ ] · neutralizer <input type="checkbox"/>                                                                                                   | <input type="checkbox"/> OK                                                                                 |
| <input type="checkbox"/> CO alarms outside every sleeping area where the permit triggers them (IRC R315.2.2); ambient CO in the mechanical room and at a register during the run                                                                                                          | Ambient CO [ ] ppm                                                                                                                                     | <input type="checkbox"/> Present <input type="checkbox"/> Installed                                         |
| <input type="checkbox"/> Cycle test from the thermostat; ignition sequence watched; blower-off delay set; doors on; literature packet attached to the furnace (Carrier end-of-job list)                                                                                                   |                                                                                                                                                        | <input type="checkbox"/> OK                                                                                 |

## Appendix C: Close-out and customer handoff

| Task                                                                                                                                                                                                                                                             | Reading / target                                                                                                                                                 | Result                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Final inspection passed (IRC R109.1.6); sticker or report in the file                                                                                                                                                                   | Inspector [ ] · date [ ]                                                                                                                                         | <input type="checkbox"/> Passed <input type="checkbox"/> Booked [date]                          |
| <input type="checkbox"/> Installation file assembled (QI §6): this sheet with every reading, the Manual J form, the AHRI certificate, model and serial numbers, permit, warranty terms and manuals; one copy to the owner, one kept by the shop                  |                                                                                                                                                                  | <input type="checkbox"/> Done                                                                   |
| <input type="checkbox"/> Warranty registered before the deadline, confirmation number recorded                                                                                                                                                                   | Registered [date] · conf. [ ]<br>Goodman, Daikin, Trane, Lennox: 60 days · Carrier, Mitsubishi: 90 days · an unregistered Goodman drops from 10 years to 5       | <input type="checkbox"/> Registered <input type="checkbox"/> Owner will, deadline [ ]           |
| <input type="checkbox"/> Walkthrough: thermostat modes and schedule (heat pumps: heat and cool, emergency heat), filter location, size and change interval, breaker and disconnect locations, drain line and float switch, what the outdoor unit does in defrost |                                                                                                                                                                  | <input type="checkbox"/> Done                                                                   |
| <input type="checkbox"/> A2L systems: owner told not to switch off the indoor unit's power; locking caps explained                                                                                                                                               |                                                                                                                                                                  | <input type="checkbox"/> Done <input type="checkbox"/> n/a                                      |
| <input type="checkbox"/> Rebate and program paperwork filed or handed over: AHRI certificate, invoice with model and serial numbers, load calculation                                                                                                            | Program [ ]                                                                                                                                                      | <input type="checkbox"/> Done <input type="checkbox"/> n/a                                      |
| <input type="checkbox"/> Photos in the file: nameplates, disconnect, line set, drain, vent termination, gauges at the final charge                                                                                                                               |                                                                                                                                                                  | <input type="checkbox"/> Done                                                                   |
| <input type="checkbox"/> Cleanup: floor protection up, old equipment out, refrigerant recovered and tagged, packaging gone, site walked with the owner                                                                                                           | Recovered [ ] lb [type]                                                                                                                                          | <input type="checkbox"/> Done                                                                   |
| <input type="checkbox"/> Maintenance agreement offered; first visit booked; the readings on this sheet are the baseline that visit compares against                                                                                                              | Plan [ ] · first visit [month]                                                                                                                                   | <input type="checkbox"/> Sold <input type="checkbox"/> Declined <input type="checkbox"/> Booked |
| Technician                                                                                                                                                                                                                                                       | Name: _____ Signature: _____<br>Date: _____                                                                                                                      |                                                                                                 |
| Customer acknowledgement                                                                                                                                                                                                                                         | Name: _____ Signature: _____<br>Date: _____ Confirms the walkthrough happened and a copy of this sheet was received; not a waiver of the warranty or the permit. |                                                                                                 |

Keep this sheet with the equipment record. The start-up readings (static, airflow, subcooling or superheat, temperature rise, CO, amps) are what the first maintenance visit compares against, and the registration and permit lines are what a warranty claim asks for. The matching maintenance checklists, the maintenance agreement template and a free visit-tracking sheet are at [usedeepsel.com](http://usedeepsel.com).