CHECKLISTS TO KEEP YOU ORGANIZED

HVAC Maintenance Checklist

A checklist helps your HVAC technicians stay consistent and catch issues before they turn into expensive breakdowns or callbacks. We designed and combined six HVAC maintenance checklists to standardize visits across residential and commercial systems.

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1. Preventative maintenance

- [ ] **Electrical**
  - [ ] Inspect disconnect condition and verify proper operation
  - [ ] Inspect wiring for rub-outs, overheating, or discoloration
  - [ ] Tighten electrical connections
  - [ ] Test capacitor readings and compare to rated values
  - [ ] Inspect contactor condition and check for pitting or carbon buildup
  - [ ] Measure compressor amp draw
  - [ ] Measure blower motor amp draw
  - [ ] Verify proper voltage to equipment
  - [ ] Verify breaker trip history and check torque on lugs
  - [ ] Document abnormal readings for monitoring or repair recommendations
- [ ] **Airflow**
  - [ ] Inspect and replace or clean filters
  - [ ] Inspect blower wheel for buildup and debris
  - [ ] Inspect evaporator coil condition
  - [ ] Check supply and return airflow
  - [ ] Measure temperature split across evaporator coil
  - [ ] Measure static pressure if part of company SOP
  - [ ] Inspect duct condition for visible restrictions or disconnects
  - [ ] Verify blower motor operation and speed settings
  - [ ] Check registers and grilles for major airflow blockage
- [ ] **Refrigeration**
  - [ ] Record superheat and subcooling
  - [ ] Check refrigerant line insulation condition
  - [ ] Inspect for oil residue or signs of refrigerant leaks
  - [ ] Verify condenser coil cleanliness
  - [ ] Measure temperature split in cooling mode

- [ ] Listen for abnormal compressor operation
- [ ] Verify condenser fan motor operation
- [ ] Document refrigerant concerns instead of topping off without notes

- [ ] **Drainage**
  - [ ] Flush condensate drain line
  - [ ] Inspect drain pan condition
  - [ ] Verify condensate pump operation if equipped
  - [ ] Test float switches and drain safeties
  - [ ] Check for signs of past overflow or water damage
  - [ ] Verify proper trap configuration
- [ ] **Safety control**
  - [ ] Test limit switches and basic safety controls
  - [ ] Inspect flame sensor condition on gas furnaces
  - [ ] Inspect ignition components
  - [ ] Check for unusual combustion odors or soot conditions
  - [ ] Verify venting condition and airflow
  - [ ] Confirm proper sequence of operation
  - [ ] Verify thermostat communication with equipment
- [ ] **System performance**
  - [ ] Cycle equipment through heating or cooling operation
  - [ ] Verify thermostat calibration and operation
  - [ ] Confirm proper startup and shutdown sequence
  - [ ] Listen for abnormal noises or vibrations
  - [ ] Verify acceptable supply air temperatures
  - [ ] Check overall system responsiveness
  - [ ] Document customer comfort concerns or operational complaints
  - [ ] Confirm equipment reaches and maintains setpoint

2. Spring maintenance

- [ ] **Outdoor unit and condenser**
  - [ ] Clean condenser coil thoroughly
  - [ ] Remove debris around outdoor unit
  - [ ] Inspect condenser fins for damage or restriction
  - [ ] Verify proper condenser airflow clearance
  - [ ] Inspect condenser fan motor operation
  - [ ] Check fan blade condition and mounting
  - [ ] Listen for abnormal vibration or bearing noise
  - [ ] Inspect disconnect and whip condition
  - [ ] Verify condenser level and mounting stability

- [ ] **Refrigerant and cooling performance**
  - [ ] Measure suction and liquid pressures under load
  - [ ] Record superheat and subcooling
  - [ ] Verify refrigerant charge matches manufacturer targets
  - [ ] Measure return and supply air temperature split
  - [ ] Inspect refrigerant line insulation condition
  - [ ] Look for oil stains near fittings, coils, or service valves
  - [ ] Listen for abnormal compressor sounds
  - [ ] Verify compressor amp draw
  - [ ] Confirm stable cooling cycle operation
- [ ] **Electrical checks**
  - [ ] Test capacitor readings against rated values
  - [ ] Inspect contactor for pitting or carbon buildup
  - [ ] Tighten electrical connections
  - [ ] Inspect wiring for overheating or rub-outs
  - [ ] Verify voltage to equipment
  - [ ] Measure compressor amp draw
  - [ ] Measure condenser fan motor amp draw
  - [ ] Inspect breakers and fuses for visible wear
  - [ ] Document weak electrical components for monitoring or replacement
- [ ] **Airflow and indoor coil**
  - [ ] Inspect and replace or clean air filters
  - [ ] Inspect evaporator coil condition
  - [ ] Check blower wheel cleanliness
  - [ ] Verify blower motor operation
  - [ ] Inspect accessible ductwork for restrictions or disconnects
  - [ ] Measure airflow or static pressure if part of SOP
  - [ ] Confirm supply and return airflow balance
  - [ ] Check registers and grilles for blockage
- [ ] **Condensate and drainage**
  - [ ] Flush condensate drain line
  - [ ] Inspect drain pan condition
  - [ ] Test float switches and safeties
  - [ ] Verify condensate pump operation if equipped
  - [ ] Check for signs of overflow or water staining
  - [ ] Inspect drain trap configuration
- [ ] **Thermostat and system performance**
  - [ ] Verify thermostat calibration and programming
  - [ ] Test cooling call response

- [ ] Confirm proper startup and shutdown sequence
- [ ] Check system cycling behavior
- [ ] Verify acceptable supply air temperatures
- [ ] Listen for abnormal operational noises
- [ ] Document customer comfort concerns
- [ ] Confirm system reaches setpoint properly

- [ ] **Visual inspection items**
  - [ ] Oil stains near refrigerant connections
  - [ ] Crushed or damaged condenser fins
  - [ ] Biological growth around drain systems
  - [ ] Dirty evaporator or condenser coils
  - [ ] Rusted drain pans
  - [ ] Airflow restrictions around equipment
  - [ ] Burned wiring or discoloration
  - [ ] Weak insulation on refrigerant lines
  - [ ] Excessive vibration or movement during operation
- [ ] **Common upsell and repair triggers**
  - [ ] Dirty condenser coils restricting airflow
  - [ ] Weak capacitors nearing failure
  - [ ] Restricted filters or undersized filtration
  - [ ] Dirty evaporator coils
  - [ ] Blower wheel buildup
  - [ ] High static pressure or weak airflow
  - [ ] Damaged refrigerant insulation
  - [ ] Drainage concerns or safety switch activation
  - [ ] Aging contactors or overheated wiring

3. Fall maintenance

- [ ] **Heat exchanger and combustion inspection**
  - [ ] Inspect accessible heat exchanger surfaces
  - [ ] Look for visible cracks, splits, or separations
  - [ ] Check for rust buildup or corrosion
  - [ ] Inspect for discoloration or hotspot indicators
  - [ ] Look for soot accumulation or unusual combustion residue
  - [ ] Verify burner flame appearance and stability
  - [ ] Inspect burner assembly condition
  - [ ] Confirm proper venting connection and support
  - [ ] Inspect flue pipe for rust, gaps, or deterioration
  - [ ] Document visible combustion concerns immediately

- [ ] **Ignition system and flame sensor**
  - [ ] Clean flame sensor
  - [ ] Inspect ignitor condition
  - [ ] Verify ignition sequence operation
  - [ ] Check burner crossover operation
  - [ ] Inspect wiring connections to ignition components
  - [ ] Verify flame rectification readings if part of SOP
  - [ ] Listen for delayed ignition or rough startup
  - [ ] Confirm stable burner operation during full cycle
  - [ ] Inspect ignition control board condition
- [ ] **Gas pressure and combustion basics**
  - [ ] Verify gas valve operation
  - [ ] Check gas pressure
  - [ ] Inspect gas piping connections for visible concerns
  - [ ] Verify proper combustion air availability
  - [ ] Inspect vent termination condition
  - [ ] Check for unusual odors during operation
  - [ ] Observe burner flame color and consistency
  - [ ] Verify proper draft conditions
  - [ ] Document combustion irregularities for follow-up testing if needed
- [ ] **Safety control**
  - [ ] Test limit switch operation
  - [ ] Inspect rollout switches
  - [ ] Verify pressure switch operation
  - [ ] Test system safeties during heating cycle
  - [ ] Confirm proper blower activation timing
  - [ ] Verify furnace shutdown sequence
  - [ ] Inspect door switches and access panels
  - [ ] Check thermostat heating call response
  - [ ] Verify fault codes or diagnostic indicators
- [ ] **Blower and airflow**
  - [ ] Inspect blower wheel cleanliness
  - [ ] Verify blower motor operation
  - [ ] Measure blower amp draw
  - [ ] Inspect filter condition and sizing
  - [ ] Replace or clean filters
  - [ ] Confirm supply and return airflow
  - [ ] Measure static pressure if part of company SOP
  - [ ] Inspect accessible ductwork for restrictions

- [ ] Check registers and returns for blockage

- [ ] **System performance**
  - [ ] Cycle system through full heating operation
  - [ ] Verify thermostat calibration and programming
  - [ ] Confirm proper startup and shutdown sequence
  - [ ] Measure temperature rise
  - [ ] Listen for abnormal noises or vibrations
  - [ ] Confirm blower and burner operation remains stable
  - [ ] Verify equipment reaches setpoint properly
  - [ ] Document customer comfort concerns
  - [ ] Record components needing monitoring or replacement
- [ ] **Visual warning signs**
  - [ ] Rust inside burner compartments
  - [ ] Soot accumulation
  - [ ] Flame rollout signs
  - [ ] Scorched wiring or melted insulation
  - [ ] Discolored metal surfaces
  - [ ] Excessive heat near cabinet panels
  - [ ] Water streaking around venting
  - [ ] Cracked drain tubing on condensing furnaces
  - [ ] Dirty blower wheels restricting airflow
  - [ ] Improper vent slope or loose vent connections

4. Residential maintenance

- [ ] **Cleanliness and basic system care**
  - [ ] Replace or clean air filters
  - [ ] Inspect filter sizing and fitment
  - [ ] Clean condenser coil surfaces
  - [ ] Inspect evaporator coil condition where accessible
  - [ ] Flush condensate drain line
  - [ ] Inspect drain pan for buildup or standing water
  - [ ] Check around equipment for debris or airflow blockage
  - [ ] Inspect blower wheel for dirt accumulation
  - [ ] Verify supply and return registers are unobstructed
- [ ] **Electrical and component**
  - [ ] Test capacitor readings against rated values
  - [ ] Inspect contactor condition
  - [ ] Tighten electrical connections
  - [ ] Inspect visible wiring for overheating or damage

- [ ] Measure blower motor amp draw
- [ ] Verify condenser fan motor operation
- [ ] Listen for abnormal motor or compressor noise
- [ ] Check disconnect condition
- [ ] Inspect breakers and fuses for visible concerns

- [ ] **Thermostat and control**
  - [ ] Verify thermostat calibration
  - [ ] Confirm heating and cooling mode operation
  - [ ] Test thermostat response time
  - [ ] Verify proper startup and shutdown sequence
  - [ ] Check programmed schedules
  - [ ] Confirm fan operation settings
  - [ ] Verify communication with equipment
  - [ ] Document thermostat concerns or inconsistencies
- [ ] **Airflow and comfort performance**
  - [ ] Measure temperature split
  - [ ] Confirm proper airflow across occupied spaces
  - [ ] Inspect accessible ductwork for visible restrictions
  - [ ] Verify blower performance
  - [ ] Listen for excessive airflow noise or vibration
  - [ ] Check for uneven cooling or heating complaints
  - [ ] Confirm system reaches thermostat setpoint
  - [ ] Document comfort concerns by room or zone
- [ ] **Indoor air quality and filtration**
  - [ ] Inspect air filtration condition
  - [ ] Verify proper filter type and MERV rating
  - [ ] Check UV system operation if installed
  - [ ] Inspect humidifier or dehumidifier operation if equipped
  - [ ] Inspect IAQ accessories for maintenance needs
  - [ ] Document airflow restrictions tied to filtration issues
  - [ ] Recommend filter upgrades, if appropriate
- [ ] **Condensate and moisture management**
  - [ ] Flush condensate drain line
  - [ ] Verify float switch operation
  - [ ] Inspect condensate pump if present
  - [ ] Check for algae or biological buildup
  - [ ] Inspect for water staining near equipment
  - [ ] Verify drain line support and slope
  - [ ] Confirm proper drainage during cooling operation

5. Commercial maintenance

- [ ] **Site-level commercial HVAC**
  - [ ] Review tenant or occupant comfort complaints
  - [ ] Verify thermostat schedules and occupied/unoccupied settings
  - [ ] Check BAS or control system alerts
  - [ ] Inspect roof access pathways and unit clearances
  - [ ] Verify equipment labeling and unit identification
  - [ ] Confirm maintenance records match unit inventory
  - [ ] Check overall building airflow balance concerns
  - [ ] Document recurring problem areas by suite or zone
  - [ ] Review filter replacement schedules across site
- [ ] **Rooftop unit and packaged unit**
  - [ ] Clean condenser coils thoroughly
  - [ ] Inspect evaporator coil condition
  - [ ] Check condenser fan motors and blades
  - [ ] Verify blower motor operation
  - [ ] Inspect blower wheel cleanliness
  - [ ] Inspect cabinet panels and weather seals
  - [ ] Check for excessive vibration or noise
  - [ ] Verify disconnect condition and accessibility
  - [ ] Inspect hail damage or coil fin damage
  - [ ] Confirm unit mounting stability and curb condition
- [ ] **Economizer and ventilation**
  - [ ] Inspect economizer operation
  - [ ] Verify damper movement and linkage condition
  - [ ] Check fresh air intake operation
  - [ ] Inspect actuator functionality
  - [ ] Verify outdoor air settings
  - [ ] Inspect screens and intake openings for blockage
  - [ ] Check ventilation airflow
  - [ ] Inspect dampers for sticking or binding
  - [ ] Document ventilation or indoor air quality concerns
- [ ] **Belt-driven system**
  - [ ] Inspect belt condition for cracking or glazing
  - [ ] Verify proper belt tension
  - [ ] Check pulley alignment
  - [ ] Inspect bearings for wear or noise
  - [ ] Verify blower rotation direction
  - [ ] Inspect motor mounts and hardware

- [ ] Check for vibration during operation
- [ ] Document worn belts or pulleys for replacement

- [ ] **Electrical and power distribution**
  - [ ] Tighten electrical connections
  - [ ] Inspect contactors and relays
  - [ ] Test capacitors if equipped
  - [ ] Verify voltage across phases
  - [ ] Check phase balance
  - [ ] Measure compressor amp draws
  - [ ] Measure blower motor amp draws
  - [ ] Inspect wiring for overheating or discoloration
  - [ ] Verify breaker and disconnect condition
  - [ ] Inspect control wiring and low-voltage connections
- [ ] **Refrigeration and cooling performance**
  - [ ] Measure refrigerant pressures under load
  - [ ] Calculate superheat and subcooling
  - [ ] Inspect for oil residue around coils and fittings
  - [ ] Verify condenser airflow
  - [ ] Measure supply and return temperatures
  - [ ] Check cooling cycle operation
  - [ ] Inspect refrigerant insulation condition
  - [ ] Listen for abnormal compressor operation
  - [ ] Verify staging operation on multi-stage equipment
  - [ ] Document performance irregularities by unit
- [ ] **Drainage and moisture management**
  - [ ] Flush condensate drain lines
  - [ ] Inspect drain pans for rust or buildup
  - [ ] Verify condensate pump operation if equipped
  - [ ] Check rooftop drains near equipment
  - [ ] Inspect traps and drain slope
  - [ ] Look for signs of overflow or water intrusion
  - [ ] Verify float switch operation
  - [ ] Document standing water concerns
- [ ] **System performance and operation**
  - [ ] Verify thermostat communication
  - [ ] Confirm proper staging operation
  - [ ] Check occupied and unoccupied cycle operation
  - [ ] Verify heating and cooling changeover
  - [ ] Listen for abnormal operational noise

- [ ] Confirm proper airflow across zones
- [ ] Verify system reaches setpoint
- [ ] Document comfort concerns by area
- [ ] Record units requiring follow-up repairs

6. Inspection documentation

- [ ] Record all maintenance findings, including location and severity
- [ ] Include repair recommendations and preventative maintenance suggestions
- [ ] Take before-and-after photos of dirty and cleaned components
- [ ] Take photos of issues like damaged components, leaks, or safety concerns
- [ ] Record equipment details, including model numbers, filter sizes, and system age
- [ ] Review maintenance findings with the customer
- [ ] Explain repair priorities and system performance concerns
- [ ] Get customer signature on completed maintenance checklist
- [ ] Save follow-up recommendations for future service visits

Cooling and electrical readings

- [ ] Suction and liquid line pressures
- [ ] Superheat and subcooling (if applicable)
- [ ] Compressor amp draw
- [ ] Blower motor amp draw
- [ ] Condenser fan motor amp draw
- [ ] Voltage readings (where applicable)
- [ ] Temperature split across evaporator coil
- [ ] Outdoor ambient temperature (if part of SOP)

Airflow and filtration documentation

- [ ] Static pressure readings (if measured)
- [ ] Filter condition
- [ ] Filter size and type
- [ ] Airflow concerns or restrictions
- [ ] Blower cleanliness observations
- [ ] Duct restriction observations, if visible