

HVAC Maintenance Checklist

Heating System

Furnace Inspection

- Check for gas leaks around the furnace.
- Inspect the furnace filter for dirt and replace if necessary.
- Verify that the thermostat is working correctly.
- Inspect the ignition system and test the flame sensor.
- Check the burners for any signs of corrosion or damage.
- Inspect the heat exchanger for cracks or leaks.
- Clean the furnace blower and check for proper operation.
- Check the furnace exhaust pipe for blockages or leaks.

Heat Pump Inspection

- Inspect the coil for ice buildup and clean if necessary.
- Check the refrigerant level and verify the absence of leaks.
- Test the reversing valve to ensure it switches modes smoothly.
- Inspect the electrical connections for wear or damage.
- Verify the defrost cycle is operating properly.
- Inspect the heat pump for noise, unusual vibration, or system failure.

Boiler Inspection

- Check the pressure and temperature settings.
- Inspect the expansion tank for proper functioning.
- Verify that the safety valve is working.
- Check the water level and ensure it's within the acceptable range.
- Clean the boiler components, including the burner and ignition system.
- Inspect the boiler piping for leaks and corrosion.

Cooling System

Central Air Conditioner Inspection

- Inspect the condenser coil for dirt or debris.
- Check the refrigerant level and refill if needed.
- Inspect the evaporator coil for dust buildup and clean it.
- Check the air filter and replace it if necessary.
- Test the thermostat for accuracy.
- Inspect the condenser fan for proper operation.
- Ensure the air handler is working correctly and clean the blower fan.



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Heat Pump Inspection

- Inspect the refrigerant charge and ensure proper levels.
- Check the reversing valve operation.
- Clean the coils and check for ice buildup.
- Check the fan operation and inspect for any signs of wear or damage.
- Verify defrost cycle function.
- Inspect the electrical components and connections.

Alternative Cooling Systems

- Inspect window air conditioners for dirt or blockage in filters.
- Check ductless mini-split systems for refrigerant leaks and cleanliness.
- Test portable cooling units for effective cooling.
- Check the air flow and ductwork connections.



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Ventilation

Ductwork System

- Inspect the ductwork for leaks, holes, or corrosion.
- Check for proper insulation on the ducts.
- Ensure ducts are not clogged with dust, debris, or mold.
- Check for any disconnected or poorly sealed duct joints.
- Ensure that vents are open and clear of obstruction.

Air Distribution and Blower Components

- Check the blower motor for proper operation.
- Inspect the blower fan for wear or damage.
- Verify the air distribution system is balanced and effective.
- Check for proper air pressure within the system.

Ventilation and Indoor Air Quality Systems

- Inspect the ventilation system for proper airflow and function.
- Test air purifiers or filtration systems to ensure proper operation.
- Check for clean air filters in the ventilation system.
- Inspect humidity control systems (e.g., humidifiers, dehumidifiers).

Exhaust and Fresh Air Intake

- Inspect exhaust fans for proper operation
- Ensure that the fresh air intake is not blocked or obstructed.
- Test the airflow of exhaust vents to ensure they are functioning correctly.
- Inspect kitchen and bathroom exhaust systems for proper ventilation.

Thermostat and Control Systems

- Check the thermostat for accurate temperature reading.
- Verify the thermostat is correctly wired and calibrated.
- Test for consistent system response when changing settings.
- Ensure Wi-Fi or programmable features are functioning correctly (if applicable).
- Check for compatibility with heating and cooling systems.

Electrical Components

- Inspect all wiring for signs of wear, corrosion, or overheating.
- Verify electrical connections are secure and tight.
- Check fuses and circuit breakers for function.
- Inspect the control board for any faults or damage.
- Test for proper operation of the contactors and relays.

External HVAC Components

- Inspect the outdoor unit for debris or obstructions.
- Check the condenser unit for proper airflow.
- Inspect outdoor piping for leaks or insulation damage.
- Check for any visible damage to the unit's housing.

Insulation and Sealing

- Inspect insulation around pipes, ducts, and the HVAC system.
- Check for gaps or cracks in the insulation material.
- Ensure seals around windows and doors are intact to prevent air leaks.
- Inspect attic insulation for efficiency.
- Check for proper sealing around the system's vents.

Safety Inspection Items

- Inspect carbon monoxide detectors (if applicable).
- Verify gas lines are secure and free from leaks.
- Test the emergency shutoff switch.
- Ensure the HVAC system is grounded properly.
- Check for proper ventilation in rooms with HVAC equipment.
- Test safety switches for proper operation.

System Performance Testing

Heating Performance

- Test the system's heating output by measuring air temperature at the registers.
- Verify system response time to temperature adjustments.
- Ensure even heat distribution across rooms.
- Test for energy efficiency.

Cooling Performance

- Test the system's cooling output by measuring air temperature at the registers.
- Check for adequate cooling in each room.
- Monitor the compressor and condenser for proper operation.
- Inspect airflow and ensure consistent cooling.

Ventilation Performance

- Test airflow to ensure ventilation system is effective.
- Inspect air quality levels, checking for contaminants.
- Measure ventilation rate to ensure it's meeting the required standards.
- Test exhaust systems to ensure proper airflow and air quality.