

HVAC EQUIPMENT STARTUP CHECKLIST

General Information:

Customer Name:	
Technician Name:	
Date:	
Site Address:	

Equipment Type:	
Model Number:	
Serial Number:	
Manufacturer:	

Pre-Startup Inspection

Visual Inspection

- Ensure equipment is installed according to manufacturer specifications (correct placement, secure mounting).
- Verify there is no physical damage (bent fins, broken parts, etc.).
- Check for debris, dust, or obstructions in and around the unit.
- Confirm all access panels are securely attached.
- Inspect for visible corrosion on connections or components.
- Ensure proper clearance from walls, ceilings, or other objects (per manufacturer requirements).

Electrical Connections

- Verify power supply matches equipment voltage requirements (____V).
- Check all wiring connections for tightness and correct polarity.

Refrigerant System

- Confirm refrigerant lines are insulated properly.
- Inspect refrigerant piping for signs of leaks.
- Ensure the system is fully charged with the correct refrigerant type (R410A, R22, etc.).
- Verify refrigerant charge based on ambient temperature and pressure readings:
Superheat: _____°F
Subcooling: _____°F
- Inspect for proper oil levels (if applicable).

- Inspect and tighten terminal block connections.
- Check circuit breakers and fuses are of proper size.
- Grounding connections verified as per code.

Startup Procedure

Thermostat Setup

- Set thermostat to manufacturer recommended settings.
- Test thermostat operation by changing settings (heat/cool, fan modes).
- Verify communication between the thermostat and HVAC unit.

Electrical Startup

- Turn on main power and monitor startup sequence.
- Observe electrical current draw during startup and running conditions (Amps: _____).
- Check for unusual noises, vibrations, or odors during startup.

Airflow and Ductwork

- Ensure all supply and return vents are open and free of blockages.
- Inspect ductwork for leaks or damage.
- Measure and adjust static pressure in the system (static pressure: _____ in. wg).
- Confirm blower motor and fan are operational and rotating in the correct direction.
- Measure airflow (CFM: _____).

System Operational Check

Heating Mode

- Activate heating and confirm unit switches over smoothly.
- Verify proper ignition sequence and burner operation.
- Measure temperature rise across the heat exchanger:
Entering Air Temp: _____°F
Leaving Air Temp: _____°F
- Monitor combustion venting system for proper function.

Safety and Control Checks

- Check the operation of all safety controls (limit switches, pressure switches, etc.).
- Verify control board status and troubleshoot any error codes displayed.

Cooling Mode

- Activate cooling mode and monitor compressor operation.
- Measure temperature drop across evaporator coil:
Entering Air Temp: _____°F
Leaving Air Temp: _____°F
- Verify that the condenser fan operates correctly and measures heat rejection.
- Test the high and low-pressure switches.
- Ensure condensate drain lines are clear and draining properly.

Post-Startup Inspection

System Monitoring

- Check for steady operation in both heating and cooling modes.
- Verify no unusual noises or vibrations during operation.
- Monitor refrigerant pressures and temperatures during continuous operation:
Suction Pressure: _____ psig
Discharge Pressure: _____ psig
Compressor Amps: _____ A
- Check system performance against manufacturer specifications.

Final Electrical Inspection

- Confirm running voltage and amperage are within acceptable limits.
- Inspect all safety shut-off switches and verify proper operation.

Filter and Indoor Air Quality

- Install/inspect air filters (filter size: _____).
- Check indoor air quality components (UV lights, air purifiers, etc.) for proper operation.
- Confirm proper humidity levels and adjust as needed.

Maintenance Checklist

General Maintenance

- Lubricate moving parts (blower motor, fan bearings, etc.).
- Inspect and clean evaporator and condenser coils.
- Tighten all belts and replace if needed.
- Verify gas pressure (in heating mode): _____ psi.

Additional Maintenance Tasks (if applicable):

- Inspect heat exchanger for cracks or leaks.
- Clean or replace condensate pump or pan (if applicable).
- Check for proper operation of zone controls (if multi-zone system).

Final Verification and Sign-off

- Technician confirms that all startup and maintenance steps are complete and the system is operating as per manufacturer specifications.

Technician Signature: _____

Customer Signature: _____