

Customer Name:

Project Address:

Date:

Ducted Heat Pump Installation Checklist

This guide does not replace the manufacturer's specifications. Follow the manufacturer's installation instructions and building code requirements.

BEFORE YOU BEGIN

- ☐ Discuss your plan with the occupant and property owner.
- ☐ Choose inverter-driven, variable-speed heat pumps that are sized with a heat load calculation for the area to be served.
- ☐ Plan to install system on a dedicated electrical circuit.
- ☐ Plan to install power disconnect and service outlet to code.
- ☐ Plan to install a heat pump or whole house surge protector.
- ☐ Where a new thermostat location is provided, it shall be located on an interior wall away from heating or cooling registers, appliances, lighting fixtures, exterior doors, skylights, windows, and areas that receive direct sunlight or drafts.
- ☐ A room-to-room pressurization test is recommended. If a room pressure exceeds 3Pa or more, remediation measures such as a door undercut, transfer grille or dedicated return should be made.
- ☐ Improve the envelope: To ensure that the customer can receive utility cost savings when changing from a gas system to a heat pump, it is important to capture all opportunities to improve the air and thermal boundary of the home.

INSTALLATION

FILTERS

- ☐ If the air filter is installed in a filter media box attached to the air handler, the access panel for the filter should be fitted with a flexible, air-tight gasket to prevent air leakage.

DUCTS

- ☐ All ducts in unconditioned space (e.g., attics and crawlspaces) shall be inspected and tested for air leakage; all damaged or disconnected ducts shall be repaired or replaced, and all visible leaks shall be sealed with mastic (UL 181 tape may be used at the air handler only) and insulated to current code; R-11 secured batts or R-8 flex.
- ☐ Duct testing can be completed with duct blaster or pressure pan testing while running a blower door. Pressure pan readings should ideally be under 3 pa at CFM 50 per duct register with an average 2 pa combined. Please inform your PCEF QA Provider at the beginning of your project if you are unable to complete this testing.

- ☐ All flexible duct connections to rigid ducts shall be tightly fastened at both inner and outer lining using a compression (Panduit or equivalent) strap tightened with a manufacturer approved tensioning tool.
- ☐ Do not use sheet metal screws longer than .75" in length

OUTDOOR UNIT (COMPRESSOR)

- ☐ Set the unit on an elevated mount on a stable, level surface. Ground-based mounting systems are preferred over building-connected racks.
- ☐ Use risers to prevent debris and snow buildup and allow better drainage. Must be a minimum of 18" above any surface where snow may accumulate.
- ☐ Secure outdoor unit to the pad, risers and/or resting surface using bolts and/or adhesive.
- ☐ Allow clearance around unit for airflow.
- ☐ Install service outlet and shut off to code.
- ☐ Recommend installing the ODU under a covered area or building a cover over it.
- ☐ Install a drain pan heater to prevent defrost discharge from freezing inside the compressor.
- ☐ Installation of anti-vibration pads is recommended if the heat pump is attached to the building to mitigate potential noise complaints.
- ☐ The outdoor unit may be wall-mounted using appropriate hardware and installed per the manufacturer's instructions. Wall-mounted ODU shouldn't be installed on bedroom walls due to noise issues (discuss with homeowner if this is the only location to install the unit).
- ☐ Avoid installing outdoor units along pathways so water from defrost won't form ice on walkways.

INDOOR UNIT

- ☐ Indoor unit securely mounted, level and plum per manufacturer specs to a permanent surface.
- ☐ Primary indoor unit, or largest capacity unit, installed in main living area.
- ☐ Ensure adequate spacing of the indoor unit to allow for routine maintenance and cleaning.

LINESET

- ☐ Insulation must cover entire line set length to avoid condensation and decreased efficiency. Protect the outdoor line set from insulation damage with rigid line hide and building code approved line set protection.
- ☐ An insulative sealant must seal penetrations through the shell of the home; return any insulation disturbed by installed line set to original (or better) condition.
- ☐ Seal the line set cover by using spray foam at any termination points.
- ☐ Also protect any exposed line set insulation with UV protection. Electrical tape works well.
- ☐ Document lineset length and any changes to refrigerant charge. Best practice is to add this note to the interior service panel door.
- ☐ Consult the manufacturer's installation manual to verify refrigerant protocols.

COMMISSIONING

- ☐ Start-up commissioning to manufacturer's specifications by installers that have received manufacturer's installation training.

OCCUPANT EDUCATION

- ☐ Instruct occupants to clean the filter(s) on the indoor head/cassette every 3-4 months to ensure long life and efficient performance.
- ☐ Ensure occupant has a copy of the manufacturer's operation manual; refer to the manual during your unit operation walk-through or training.
- ☐ Provide guidance on the importance of keeping snow and debris away from the outdoor unit.
- ☐ Instruct occupants to use "heat" or "cool" settings (rather than "auto"), and generally turn off the unit when neither is needed. Using "auto heat/cool" settings to maintain a specific comfort setting can significantly increase energy use and cause the system to interact poorly with other heating systems.
- ☐ Instruct occupants to use "automatic" fan speed setting to allow the fan speed to respond to the compressor speed and allow the fan speed to operate as quietly as possible.
- ☐ Instruct the occupant to set the backup heating thermostat 3-4 degrees lower than the DHP thermostat. This ensures that the DHP provides the majority of the heating.
- ☐ Occupant to keep a backup heating system for at least one heating season.

CONTRACTOR SIGNATURE

By signing below, I certify that I complied with the above requirements while installing the heat pump.

Signature:

Date:
