

Statewide Heat Pump Program

Recommended Air Source

Heat Pump Commissioning Checklist



NYSERDA
New York State Energy Research
and Development Authority

This form is **not** required with NYS Clean Heat program applications. It is a complimentary support tool to help with high quality ASHP installations. This document is for a **single outdoor compressor with up to 3 connected indoor units**. For more than 3 indoor units see page 3. For additional compressor units, use an additional sheet.

PROJECT INFORMATION	
Installation Company Name	
Installation Technician Information	
Customer Information	
Date of Install	
Manufacturer	
Outdoor Unit Model Number	
Indoor Unit Model Number #1	
Indoor Unit Model Number #2 (if applicable)	
Indoor Unit Model Number #3 (if applicable)	

For additional indoor heads, see page 3. For additional outdoor units, please complete a separate sheet.

Installer to complete. Check Done or N/A Column. Fill in blanks.							
Done	NA	Item Description			Indoor Unit Model		
Heat Pump Units					#1	#2	#3
		Outdoor unit height is above grade (inches) to avoid snow line. Or indicate there is no snow accumulation concern due to location under a deck.	Inches:				
		Outdoor unit is not located under a roof drip line or areas where snow and ice may accumulate. If installed under a deck, confirm adequate shielding to prevent snow/ice accumulation and ensure proper airflow into and out of the unit.					
		Outdoor unit is measured to be level and is fastened to structure or mechanical pad.					
		Outdoor unit has unobstructed airflow as required by clearances mandated by manufacturer.					
		Indoor unit has clearance for service and operation as required by manufacturer.					
		Indoor unit is properly located, properly fastened to structure, and is level.					
		Condensate line is supported approximately every 4 feet, is pitched to outlet, and drains water.					
		Ensure that the defrost water from the outdoor unit is directed to a safe drainage location to prevent pooling, icing, or damage to nearby structures. Verify that the drainage path allows for proper flow even in freezing conditions.					
Line Set							
		Diameter of line set (suction line) _____					
		Diameter of line set (liquid line): _____					
		Minimum length per manufacturer _____ Maximum Length _____					
		Maximum length permitted by manufacturer for factory charge _____					
		Maximum vertical difference per manufacturer _____					
		Installed length _____ Installed vertical difference _____					
Yes (If "yes", complete next line.)	No	Length exceeds manufacturer's requirements for factory charge					
		Refrigerant added: Pounds _____ Ounces _____					

Done	NA	Item Description	Indoor Unit Model		
Pressure Test Checklist					
		Pressurize to manufacturer's specification (_____ PSI). Record: Initial pressure: _____ PSI			
		Start hold at the moment you reach spec pressure. Record: Hold time (hh:mm): _____			
		Hold for the manufacturer-required duration (_____ minutes). Record: Hold end time (hh:mm) _____ Hold duration _____ minutes			
		Perform a soap bubble test at all connection points. Record final pressure: _____ PSI			
		Verify change in pressure is less than or equal to allowable variance (+/- _____ PSI). If not, determine and correct.			
Vacuum Decay Test Checklist					
		Evacuate the system to 500 microns or to meet manufacturer's target. Record target vacuum: _____ Microns Record time to reach target vacuum: _____			
		Hold vacuum for at least 15 minutes (or per manufacturer specifications): Record hold time: _____ minutes			
		Monitor micron level stability: If the vacuum level rises by more than 200 microns, further investigation is required. If the vacuum level remains stable, proceed with system charging.			
		Add refrigerant if necessary, based on manufacturer specification.			
		Ensure refrigerant charge is within the recommended range: Record Min/Max: _____			
		Open the refrigerant reservoir to fully load the system.			
Line Set			#1	#2	#3
		Unit 1: Flare connection tightened per mfg.'s recommended torque for liquid line . Torque setting: _____			
		Unit 1: Flare connection tightened per mfg.'s recommended torque for vapor line . Torque setting: _____			
		Unit 2: Flare connection tightened per mfg.'s recommended torque for liquid line . Torque setting: _____			
		Unit 2: Flare connection tightened per mfg.'s recommended torque for vapor line . Torque setting: _____			
		Unit 3: Flare connection tightened per mfg.'s recommended torque for liquid line . Torque setting: _____			
		Unit 3: Flare connection tightened per mfg.'s recommended torque for vapor line . Torque setting: _____			
		Line sets and units were sensed with refrigerant detector and no leaks were found.			
		Confirm that all exterior refrigerant line insulation is fully covered with UV protection as per the manufacturer's recommendations to prevent degradation.			
		Ensure the protection extends the full length of the insulation and is securely installed.			
Operations/Controls			#1	#2	#3
		Unit(s) were operated in heating or cooling modes to verify proper operation.			
		Continuous fan function disabled (ducted system only)			
		If installed, the dual fuel outdoor compressor cutoff control does not engage until the compressor is no longer capable of meeting the indoor load.			
Ducted Units					
		Design airflow _____ Design static pressure _____			
		Measured airflow _____ Measured static pressure _____			
		Ducts were sized to ACCA Manual D or equivalent.			
		Ducts are properly sealed with approved materials, i.e. duct mastic, and no leaks are evident.			
		Verified each room duct flow is in accordance with the ACCA Manual D.			
		Any ducts outside condition space are insulated. Please refer to IECC/IRC sections R403.3.1, R403.3.2, and R402.4.11 for industry standards.			
Information to Site Owner					
		I have informed the site owner that I am a participating contractor in the NYS Clean Heat statewide heat pump program and therefore a quality assurance field inspection of the installed heat pump may be conducted.			

This section of the document is for additional head units.

Done	NA	Item Description
		Indoor Unit #4 Model Number
		Indoor unit has clearance for service and operation as required by manufacturer.
		Indoor unit is properly located, properly fastened to structure, and is level.
		Condensate line is supported approximately every 4 feet, is pitched to outlet, and drains water. Ensure that the defrost water from the outdoor unit is directed to a safe drainage location to prevent pooling, icing, or damage to nearby structures. Verify that the drainage path allows for proper flow even in freezing conditions.
		Flare connection tightened per mfg.'s recommended torque for liquid line . Torque setting _____
		Flare connection tightened per mfg.'s recommended torque for vapor line . Torque setting _____
		Unit(s) were operated in heating and cooling modes to verify proper operation.
		Indoor Unit #5 Model Number
		Indoor unit has clearance for service and operation as required by manufacturer.
		Indoor unit is properly located, properly fastened to structure, and is level.
		Condensate line is supported approximately every 4 feet, is pitched to outlet, and drains water. Ensure that the defrost water from the outdoor unit is directed to a safe drainage location to prevent pooling, icing, or damage to nearby structures. Verify that the drainage path allows for proper flow even in freezing conditions.
		Flare connection tightened per mfg.'s recommended torque for liquid line . Torque setting _____
		Flare connection tightened per mfg.'s recommended torque for vapor line . Torque setting _____
		Unit(s) were operated in heating and cooling modes to verify proper operation.
		Indoor Unit #6 Model Number
		Indoor unit has clearance for service and operation as required by manufacturer.
		Indoor unit is properly located, properly fastened to structure, and is level.
		Condensate line is supported approximately every 4 feet, is pitched to outlet, and drains water. Ensure that the defrost water from the outdoor unit is directed to a safe drainage location to prevent pooling, icing, or damage to nearby structures. Verify that the drainage path allows for proper flow even in freezing conditions.
		Flare connection tightened per mfg.'s recommended torque for liquid line . Torque setting _____
		Flare connection tightened per mfg.'s recommended torque for vapor line . Torque setting _____
		Unit(s) were operated in heating and cooling modes to verify proper operation.