AIR SOURCE HEAT PUMP OPERATING TIPS

NEW YORK STATE | NYS Clean Heat Supported

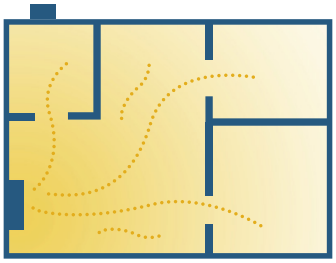
Cold-climate air source heat pumps, when designed right for the home, are capable of heating and cooling any New York home year-round. But heat pumps deliver heat a little differently than fossil-fuel heating systems. Unlike furnaces, heat pumps put out slow, steady heat. They can ramp up their heat production to meet the needs in the coldest days and ramp down to serve the needs of a mild spring morning. This leads to continuous comfort. But it also leads to some different expectations and operating principles. Understanding how to operate and maintain your heat pump can help you maximize energy savings and save money on utility bills. Read below for some tips on how to get the most out of your heat pump.

Let Your Heat Pump Run

Cold-climate heat pumps deliver heat throughout the heating season. Unlike conventional fossil-fuel heating systems, heat pumps are most efficient when the thermostat maintains a steady temperature. Lowering the temperature set point during unoccupied hours or having sudden changes in temperature by 3°F or more could trigger the heat pump to run in an inefficient mode to catch-up, leading to increased costs. If you need to set back the temperature at night for more comfortable sleeping, be sure to raise the setting slowly only a few degrees at a time in the morning.

Maximize Airflow

To heat or cool rooms that don't have their own ductless heads, or where the central system does not supply, keep doors open to maximize airflow. Conversely, close the doors to rooms that you are not trying to heat or cool actively.



Choose the Right Mode

Temperature Modes

Set the heat pump mode to "Heat" in the winter and "Cool" in the summer, rather than using the "Auto Temperature" mode, which automatically switches between heating and cooling based on indoor temperature. In the Auto setting, the system could start heating on a cool summer night or cooling on a sunny winter afternoon. It could also lead to heating and cooling battles between HVAC systems, costing you energy and money.

Fan Modes

Continuous indoor fan operation can degrade heat pump performance. Start with setting your heat pump on "Auto Fan" mode. If the heating or cooling does not spread far enough, set it to the lowest level that will meet your needs. Then adjust the air flow direction for comfort—warm air is best directed downward. Adjust the vanes to direct air flow where you need heating or cooling most.

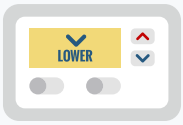
Humidity Modes

When it's hot and muggy, "Dry" mode can also be used to reduce the humidity and make the room feel more comfortable. This mode, or similar, is only available on some heat pumps.

Rely on Your Heat Pump

If your old heating system is still in place with intention to use it as backup, you should set its thermostat lower than your heat pump's thermostat by somewhere between 5°F and 3°F. The backup system will only turn on if the heat pump isn't maintaining its set point temperature. This allows your old system to become the backup heat source and prevents the two systems from competing with one another. Relying on the heat pump as your primary heat source will maximize savings. However, be sure your backup system runs enough during extreme cold weather to keep pipes from freezing. Alternatively, installing an integrated control system will make the same settings automated.

Heat Pump Remote



Thermostat

Find a Comfortable Set Point

For ductless split systems, temperature is measured at the indoor units. Since indoor units are typically mounted high near the ceiling and because warm air rises, you may need to set your heat pump thermostat a little higher to provide comfort at the floor level. Typically, at most 1 to 2 degrees higher than what you may have used for a previous furnace or boiler. Set points of 68 degrees Fahrenheit in the winter months and 75 degrees Fahrenheit in the summer months are typical for maintaining comfort.