

NHSAVES Your Source for Energy Efficiency



AIR SOURCE HEAT PUMP Usage and Maintenance Tips

Tens of thousands of heat pumps have been installed in New Hampshire homes and businesses because they are the most energy-efficient way to heat and cool. This clean technology is different from the conventional heating systems that you may be used to. If you've recently made the investment, or are considering it, we'd like to share tips on how you can save the most out of your air source heat pump.*





NHSaves[®] is a collaboration of New Hampshire's electric and natural gas utilities working together to provide New Hampshire customers with information, incentives, and support designed to save energy, reduce costs, and protect our environment statewide.

*A heat pump is an electrical system. Unless you currently have electric resistance heating, it will add to your electricity usage. In many cases, that additional electric use is offset by savinge elsewhere, such as a propane or oil heating fuel bill. You may decide that increased comfort is worth an additional energy cost. Adding a heat pump where there was no cooling source before will increase your electric use in the cooling season



SETTING AND USAGE TIPS

- Use your heat pump year-round. Highperformance heat pumps are the most energy-efficient heating systems, even on the coldest winter day.
- Set it and forget it. Turning your heat pump on and off, or constantly adjusting its temperature settings, may actually use more energy and cause comfort issues. Heat pumps operate most efficiently when holding a steady temperature.
- Set the temperature for comfort. Common homeowner advice may tell you to keep the thermostat at a set degree for certain seasons (68°F in the winter and 72°F in the summer); however, you should choose a temperature setting based on your comfort. Heat pumps operate efficiently at higher space temperature set points in the winter.
- Avoid auto mode. When the temperature outside is mild, a heat pump's auto mode can sometimes result in the system switching back and forth between heating and cooling. To prevent this, set the heat pump to cooling mode during the spring and summer, and heating mode during the fall and winter.

SYNERGY WITH YOUR HOME

- Seal in your savings. To make the most of your new system, consider a Home Energy Performance audit to help understand how your home is performing. Air sealing, duct sealing, insulation, and energy-efficient windows and doors help retain the heating or cooling provided by your new heat pump, improving comfort and efficiency.
- **Prioritize your heat pump.** Some homeowners may opt to keep their pre-existing heating system in place as a backup or to heat a separate area of the home. In these situations, it's important to ensure that the existing system and the heat pump work together rather than competing. This may mean setting the boiler or furnace thermostat to a lower temperature, closing a radiator or damper in the rooms served by the heat pump, or installing integrated controls.
- Switch over at preset temperatures. When using a heat pump with an existing heating system (furnace or boiler) integrated controls can automatically switch between a heat pump and backup heating system at a pre-set outdoor air temperature. Please note, the most cost-optimal switchover temperature will depend on the backup system's heating fuel.

HEAT PUMP MAINTENANCE

- **Clean your air filters.** Dirty filters reduce your heat pumps efficiency. Check them regularly to determine how often they need cleaning, as factors like unit location can affect buildup. Refer to the owner's manual for specific instructions.
- Keep your outdoor unit clean and clear. To operate efficiently, outdoor units need space for airflow. Regularly check for obstructions and, when necessary, remove leaves, trim nearby shrubs and shovel snow away.
- Have your heat pump serviced. As with any heating and cooling system, it's important to have your equipment regularly serviced to extend its lifespan and keep it running efficiently. To ensure peak performance, follow manufacturers' recommendations for professional service.

Optimize Comfort and Savings

Using a heat pump effectively can improve efficiency and enhance comfort. Unlike traditional combustion heating, heat pumps operate differently—following these tips can help maximize performance and savings. ensuring you get the most out of your investment.

DID YOU KNOW? Cold climate heat pumps are designed to run almost continuously at low levels. If your heat pump is running continuously, it's a good indicator that it is running efficiently.

During the defrost cycle, indoor units may temporarily disperse cooler air or stop blowing hot air altogether, and lights may blink. Once the defrost cycle is complete, the unit will resume normal function automatically.



When outside temperatures drop below $\sim 40^{\circ}$ F, outdoor units may enter defrost mode to prevent ice buildup on coils.