



PRESS RELEASE

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EnergyWise™ Tip: Window Air Conditioners

COLUMBUS, Neb. — When summer pours on the heat, you want to be cool. For many reasons, people often turn to a window air conditioner. While window AC units offer many advantages over other options, they present their own challenges and drawbacks. If you are considering a window AC so you can “chill out” this summer, take a few minutes to weigh the following points.

Let’s start with advantages.

- The upfront cost is significantly less than adding a central air conditioning system to your home. Small units that cool a room start at a little more than \$100, while units large enough to serve an entire 1,400-square-foot house are often priced below \$850.
- Window AC units are easy to install. Most purchasers can mount their unit themselves without too many complications.
- They can be installed in many places. If your place has transom, single- or double- hung windows, most can find a suitable place to install them.
- Room air conditioners can be less expensive to operate than central units if operated to provide cooling only where needed,
- They provide a temporary, transferable cooling solution, which is ideal for renters who may move frequently or have a landlord who is not interested in investing in a more expensive solution.

Now consider disadvantages.

- Not all windows support air conditioners. Fixed, glider and casement windows do not accommodate window ACs.
- The overall efficiency of the air conditioning process is usually less than other air conditioning options. That is why it is important to purchase a unit with ENERGY STAR® recognition.

- The window where you install the air conditioner is not functional once the unit is installed. Your outside view will be blocked, and the window cannot be opened to let in fresh air.
- Window ACs usually require exterior support. Sadly, stories of units falling out windows, even during installation, are common.
- The installation panels that come with the unit can let in a lot of hot air, which is opposite of what you want.
- Water dripping from the exterior can end up in unwanted places, such as on a pathway or vehicle. As air conditioners cool, they also dehumidify indoor air, and that water must go somewhere.
- Even the best installation may still leave your home or apartment with a security risk.

If you decide a window air conditioner is your best choice for cooling, start by doing some homework. Begin by determining which room or rooms and how much area you are trying to cool. Buying the biggest air conditioner you can find will not necessarily make you feel more comfortable.

Air conditioners that are too big for the area they are supposed to cool will perform less efficiently and effectively than a smaller, properly-sized unit. That is because an oversized unit will cool the area to the thermostat set-point before adequate dehumidification occurs, leaving occupants feeling clammy and uncomfortable.

Window air conditioners are sized by the number of British thermal units (Btus) they remove from your living space over a one-hour period. Units range from 5,000 to 28,000 Btus in size. To estimate the size you'd need, a general rule-of-thumb is that units need 20 Btu of capacity for each square foot of living space being cooled.

Another important factor to consider when selecting a unit is room height. Ceilings higher or lower than eight feet can proportionately change your calculation. Consider where direct sunlight will be during the hottest part of the day, as well. If your unit's exterior is not shaded, it will have to run longer to compensate for the additional heat.

Since air conditioners run on electricity, consider where you will plug the unit into. Smaller room air conditioners (10,000 Btu and under) may be plugged into any 15- or 20-amp circuit if it is not shared with any other major appliances. Larger units (12,000 to 15,000 Btus) require their own, dedicated 115-volt circuit. The largest models (18,000 Btu and larger) require a dedicated 208/230-volt circuit.

To optimize the effectiveness and efficiency of your unit, consider a few more things. When installing, be sure the unit is leveled as per installation instructions so drainage occurs appropriately. Be sure the unit is adequately supported on the exterior. Larger units are especially heavy and require additional support. You do not want to experience that horrible feeling that occurs as you watch your new unit smash on the sidewalk below. At that point, there is no way to cool you down! Also, seal all gaps between the perimeter of the unit and the window to keep hot, humid air outside.

In addition, do not place lamps or televisions near the air conditioner's thermostat. Sensing heat from these appliances, the air conditioner will run longer than necessary. Set the thermostat as high as comfortably possible. Using fans in conjunction with the A/C will help distribute cooled air more evenly while providing comfort at higher temperature setpoints and saving energy.

When you turn on your air conditioner, do not turn your thermostat setting down lower than your normal temperature setting. The colder thermostat setting will not cool your home any faster and could result in excessive cooling and unnecessary expense. Set the fan speed on high, except on very humid days. When humidity is high, set the fan speed on low for more comfort, which will remove more moisture from the air because of slower air movement through the air conditioner's coils.

Finally, remember all air conditioners CONSUME ELECTRICITY! In general, the larger the unit, the more it will use. Sadly, some do not realize how much until they receive their electric bill – sometimes after more than a month of use.

If a person averages \$0.12/kWh for summer electrical costs, the following is an estimate of what it will cost to operate a window air conditioner at full load for eight hours each day over a 30-day period, based on the unit's size:

6,000 Btu - \$14.40
9,000 Btu - \$21.60
12,000 Btu - \$28.80
15,000 Btu - \$36.00
18,000 Btu - \$43.20
24,000 Btu - \$57.60

For additional information on how to make your home, business or school EnergyWiseSM, contact Loup Power District, Cornhusker Public Power District, Nebraska Public Power District, or your local public power utility. While you're at it, check out the EnergyWiseSM programs designed to help you save money. Find energy efficiency information online at www.loup.com, www.cornhusker-power.com, and www.nppd.com/save-energy.

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