

KUNI Radio Series “Unplugged”
Show #32: AC Cleaning

From the Center for Energy & Environmental Education at the University of Northern Iowa, this is Pat Higby with a series of programs on KUNI to help you save energy.

Air conditioners and refrigerators use the same operating principles. Heat is transferred by a fluid that is cooled as it flows through the tubes of a condenser. Fins are attached to these tubes to improve the heat transfer process. To work well, these tubes and fins, need to be clean so air can flow easily through them. Dust and dirt also insulate the coils, and keep the heat from transferring well. That is why it is important to keep these coils clean.

Because your refrigerator is inside, cleaning its coils is pretty easy. You can do a good job with a vacuum or long bottle-type brush. Your air conditioner condenser is outside, exposed to lots of dirt, dust, leaves, and grass clippings. Cleaning it is going to be a little harder!

The biggest problem with cleaning air conditioner condensers is the need for water, and **water and electricity is a dangerous combination!** If you are cleaning a window air conditioner, you know there is no power because the end of the cord is in full view! You can shut off central air units with the circuit breaker, but are you sure you have the right switch? Check the labeling of your breaker by shutting it off while the unit is running. If your unit was installed according to code, there is also a shut off switch outside, next to the condenser. Turn that one off, too!

Once the electricity is off, cleaning window or central air condensers is pretty much the same. To get at the coils you will need to remove the cabinet from window units. On the outdoor condenser you need to remove the top. Sometimes the fan will need to be removed as well. Cover anything electrical with plastic bags held securely in place with duct tape. Remove leaves and debris with a shop vac.

If your unit is really dirty, you can spray on a high-foaming coil cleaner, or mix up some soapy water and apply it with a paintbrush. Let stand for at least 5 minutes, and then use a garden hose to thoroughly rinse the coils. Rinse from the inside out, avoiding the electrical parts. Spraying from the outside in may just pack the dirt tighter. **Don't** use the highest pressure on your sprayer, because you may bend the fins. If you do bend the fins, straighten them with a fin comb.

Now, remove the plastic bags and let the unit dry! Don't turn on the safety switch until the ground is completely dry, and wear dry shoes when you do! If you have any doubts, hire a professional to do this job for you.

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