



ENERGY EFFICIENCY FAQS & DIYS

1

How do I clean my refrigerator's condenser coils?



We recommend cleaning the refrigerator condenser coils at least once a year. In most cases, the refrigerator's condenser coils can be found on the back lower part of the refrigerator. Please follow the instructions below to clean the refrigerator condenser coils.

Step 1: Unplug the refrigerator

Step 2: Pull the fridge away from wall to access the condenser coils located in the back (if they are not located in the back, unclamp the bottom panel of the refrigerator)

Step 3: Dust or Vacuum the coils by scraping the dirt out with a soft bristled brush and/or suck up any remaining dust with a vacuum.

Step 4: Repeat step 3 until condenser coils are cleaned.

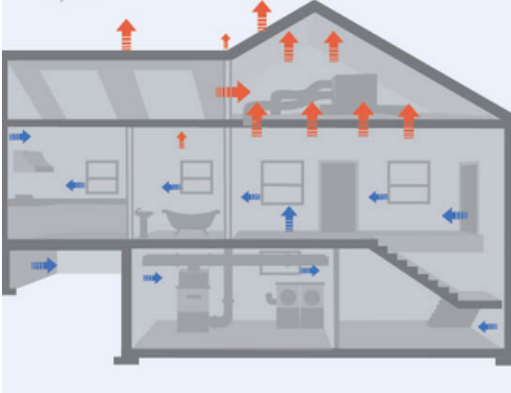
Step 5: Replace the bottom back panel if necessary and plug the refrigerator back in

Video Tutorial:

<https://tinyurl.com/clean-coils>

2

How do I test my home for air leaks?



An air leak is usually a crack or gap in your home that can let air from outside into your home. Air leaks can disrupt the temperature of your home and cause you to run your HVAC system more than needed, wasting energy and money. Seal air leaks once found.

Air leaks are more commonly found in certain areas of the home, like electrical outlet, door and window frames, attic hatches, chimneys, and baseboards.

Step 1: Do a visual inspection to find any gaps or holes in your home. You can also use your hand to see if you feel any drafts.

Step 2: Conduct a DIY pressurization test. On a cool and windy day, turn off all combustion appliances and shut all windows, exterior doors, and fireplace flues. Turn on all exhaust fans that blow air outside (clothes dryer, bathroom fans, etc.). Light an incense stick and carefully pass it around the edges of common leak sites. Wherever the smoke wavers or is sucked out of or blown into the room, there's a draft.

Step 3: Consider working with a professional to pinpoint the air leaks in your home. Certified home auditors can conduct a “blower door test” to definitively determine where your home is leaking.

3

How do I install weatherstripping?



Weatherstripping is a rubber that is used to seal the edges of doors or windows against any air leaving or entering the home. There are various types of weatherstripping as well as different widths and depths. Many come in a self-adhesive form that is easy to install.

Use weatherstripping on any gaps found in moving parts of your home (windows, doors, etc). Other gaps or cracks can be sealed with caulk. When installing weatherstripping, measure the windows and door perimeters and add another 10% to accommodate any waste. Follow the instructions Weatherstripping can be purchased at any hardware store or Amazon.

Video Tutorials:

Windows: <https://tinyurl.com/weatherstripping-windows>

Doors: <https://tinyurl.com/weatherstripping-doors>

4

How do I apply caulk?



Use caulk to close gaps on stationary parts of your home, like around outlets or at your baseboards. Always follow the instructions that come with your caulk, but general instructions include:

Step 1: Prep the area by removing old caulk and cleaning the area of any dust or dirt.

Step 2: Cut open the tip of your caulk and insert a needle to puncture the inner seal.

Step 3: Apply the caulk at a 45 degree angle, slowly and consistently squeezing the handle and moving the tip down the length of the area.

Step 4: Wet your finger with soapy water and use light pressure to smooth the caulk over the gap.

Video Tutorial:

<https://tinyurl.com/apply-caulk>

5

How do I install faucet aerators?



Faucet aerators mix air into the water stream to reduce the gallons per minute flow, saving you water and money. For bathroom faucets, choose a 1.5 or 1.0 gallon per minute (gpm) aerator. In the kitchen, where you fill pots with water, a 2 gpm aerator will be more effective.

Step 1: Turn off the water supply to the faucet.

Step 2: Unscrew your current aerator by turning it counter-clockwise. If you need to use a wrench, make sure to protect your faucet with tape or a rag so it doesn't get scratched.

Step 3: Knock out the old aerator and discard it. Lay the faucet collar so that its threads are facing upward, and place the new aerator inside with the mesh pointing downwards.

Step 4: Add the rubber gasket on top of the aerator and screw into place on the faucet.

Video Tutorial:

<https://tinyurl.com/faucet-aerator>

6

How do I install low-flow showerheads?



Look for a showerhead that uses no more than 2.0 gallons per minute (gpm). Check for the WaterSense label, which means the showerhead meets EPA's specifications for water efficiency and performance, and is backed by independent, third-party certification.

Step 1: Carefully unscrew your old showerhead using an adjustable wrench.

Step 2: Put a single strip of white Teflon pipe tape around the threads of the shower fixture pipe.

Step 3: Screw on your new showerhead by hand, then tighten it with a wrench.

Step 4: Test the water flow to make sure there are no leaks. You may need to tighten the showerhead more.

Video Tutorial:

<https://tinyurl.com/showerhead-tutorial>

How do I identify water leaks?



The average household's leaks can account for nearly 10,000 gallons of water wasted every year and ten percent of homes have leaks that waste 90 gallons or more per day. Fixing easily corrected household water leaks can save homeowners about 10 percent on their water bills.

Step 1: Check your utility bill for any unusual spikes. If you are using much more water than usual, you may have a leak.

Step 2: Visually check your house for any signs of leaks, including wet spots, water stains, mold, or drips.

Step 3: Turn off all faucets, irrigation systems, dishwashers, and other water-using appliances. Then check your water meter's leak indicator (usually a small triangular shaped dial or a small silver wheel). If it's moving, you have a leak. If it's not moving but you suspect a leak, take the meter reading, then record the reading again in 2 hours. If there is a difference, you have a slower leak.

Step 4: Check if your toilet is leaking by putting a few drops of food coloring or a dye tablet in the toilet tank (don't flush). If any color shows up in the toilet bowl after 10 minutes, you have a leak.

Step 5: Consider installing a flow monitor to automatically notify you when a leak is detected.

More resources:

<https://www.epa.gov/watersense/fix-leak-week>

8

What is a tankless water heater?



Tankless water heaters provide hot water only as it is needed, compared to standard water heaters that store hot water in a tank where it could lose heat and waste energy. Although they have a higher up-front cost, tankless water heaters last longer (20+ years vs 12-15 for standard heaters) and have lower operating costs.

For homes that use 41 gallons or less of hot water daily, demand water heaters can be 24%–34% more energy efficient than conventional storage tank water heaters. They can be 8%–14% more energy efficient for homes that use a lot of hot water -- around 86 gallons per day.

More resources:

<https://www.energy.gov/energysaver/tankless-or-demand-type-water-heaters>

9

What is a heat pump? How is it different from a standard HVAC?



A heat pump is an energy-efficient alternative to furnaces and air conditioners. They use electricity to transfer heat from a cool space to a warm space, making the cool space cooler and the warm space warmer. The most common type of heat pump is the air-source heat pump, which transfers heat between your house and the outside air.

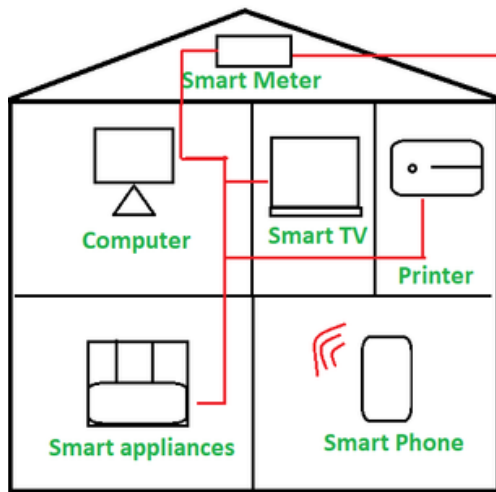
Heat pumps can reduce your electricity use for heating by approximately 50%.

More Resources:

<https://www.energy.gov/energysaver/heat-pump-systems>

10

What is a home area network (HAN)?



A Home Area Network (HAN) is a type of network in a user's home where smart devices such as laptops, computers, thermostats, alarms, and smartphones are connected into a network. This can facilitate communication between all devices, allowing you to track the energy use of each device and, depending on the HAN model, control devices from one central location. Note that a HAN is a separate device that connects to your smart utility meter.

Devices that can be connected in a HAN include but are not limited to:

- Laptops
- Printers
- Smart TV's
- Light bulbs
- Thermostats
- Garage doors

11

What is a whole house fan?



Typically a whole house fan is installed inside the attic, the space between the ceiling and living space. . It works by pulling the cool fresh air from the outside into your home up into your attic and expels hot stale air out the attic vents. The purpose is to extract the heat from the entire home and help the home stay cool longer and requires less usage of the AC unit.

They use less energy than a traditional air conditioner system, where you can save over 50% in costs. The best time to use a whole house fan is early morning and in the evenings. Be sure to open a few windows when using the whole house fan.

Pros & Cons Video:

<https://tinyurl.com/whole-house-fan>