

Tips for Maximum Efficiency and Comfort

Are you getting the most for your comfort dollar? Or are you paying to heat and cool the neighborhood?

Whether your comfort system is old or new, in a new or old home, in an apartment or a single-family home, there are many little things you can do to optimize its efficiency and minimize your utility bills. They're definitely worth the small amount of time and expense they take, because in the long run, they'll save you money.

Outside

Whatever the season, you want to keep your comfortable air inside the house. That means caulking and weather stripping doors and windows, around chimneys and flues, and anywhere else inside air can escape. Be sure to check for cracked or broken shingles, crumbling grout, and worn or torn vapor barriers, too.

Inspect the exterior of your home once or twice a year. A good way to remember is to do it when you have your regular, professional HVAC check-up because heating and cooling will be on your mind anyway.

If you're building a new home or replacing windows, invest in vinyl- or wood-clad insulated (thermopane) windows and storm windows and doors. Then keep them closed whenever the heat or air conditioning is on!

Keep vegetation and debris well away from the outdoor unit of your system. They can block air flow, which forces the system to work harder to produce the same level of comfort. You'll spend more now ... and in a few years, when the equipment fails prematurely and you have to replace it.

However, use vegetation to keep your home cooler in summer and warmer in winter. For example, plant a row of trees on the side of your home the wind usually comes from. They'll act as wind blocks. Because deciduous trees lose their leaves in the winter, they'll let in the sun's light and warmth in winter; in the summer, they provide cooling shade. Do, however, be careful about how close you plant anything to the house, and take into account that trees and shrubs grow. They can block light, and in some areas of the country become highways for such pests as carpenter ants. A local landscape architect, reputable garden center, or the state or county extension agency can help with plant selection and placement.

Inside

Set the thermostat at the highest comfortable level in the summer and the lowest comfortable level in the winter. A change in one degree changes energy consumption by about 4%. Humidifiers and dehumidifiers can make a huge difference in how the temperature feels (see Table 1).

Install a programmable thermostat. It will automatically adjust the temperature at night or when you're not going to be home for a long period of time.

Table1: Apparent Temperature for Values of Room Temperature and Relative Humidity

Temperature Room (°F)	Relative Humidity (%)										
	0	10	20	30	40	50	60	70	80	90	100
85	79	80	82	83	84	85	86	87	89	90	91
84	78	79	81	82	83	84	85	86	88	89	90
83	77	78	79	81	82	83	84	85	86	87	89
82	75	77	78	79	81	82	83	84	85	86	87
81	74	76	77	78	79	80	81	82	84	85	86
80	73	74	76	77	78	79	80	81	82	83	85
79	71	73	74	76	77	78	79	80	81	82	83
78	70	72	73	75	76	77	78	79	80	81	82
77	69	71	72	74	75	76	77	78	79	80	81
76	68	70	71	73	74	75	76	77	78	79	80
75	67	69	71	72	73	74	75	76	77	78	79
74	66	68	69	71	72	73	74	75	76	77	78
73	65	67	68	70	71	72	73	74	75	76	77
72	64	65	67	68	70	71	72	73	74	75	76
71	63	64	66	67	68	70	71	72	73	74	75
70	63	64	65	66	67	68	69	70	71	72	73
69	62	63	64	65	66	67	68	69	70	71	72
68	61	62	63	64	65	66	67	68	69	70	71
67	60	61	62	63	64	65	66	67	68	68	69
66	59	60	61	62	63	64	65	66	67	67	68
65	59	59	60	61	62	63	64	65	65	66	67
64	58	59	60	60	61	62	63	64	64	65	66
63	57	58	59	59	60	61	62	62	63	64	64
62	56	57	58	58	59	60	61	61	62	63	63
61	56	57	57	58	59	59	60	60	61	61	62
60	55	56	56	57	58	58	59	59	60	60	61

Lights are a source of indoor heat, a problem in the summer. Wherever possible, replace incandescent bulbs and fixtures with compact fluorescents. They use a lot less energy, produce less heat, and last longer. Today's fluorescents aren't like those of only a few years ago – you can choose a warm, yellow light similar to incandescent light. You can use them in table lamps, ceiling fixtures (including ceiling fan fixtures), torchieres, and for indoor and outdoor lighting. Some can be used with dimmer switches, too. Avoid halogen lamps. The light is clear and bright, but they create a lot of heat.

In the summer, keep drapes and blinds closed on the sunny side of the house during the day. In the winter, open them to take advantage of solar heat but close them at night to help block cold air (even if you have insulated windows).

Insulate attics, crawl spaces, basements, and walls to the R value recommended for your area. Your HVAC contractor can tell you how much you need. Don't forget to insulate duct work in un-conditioned space.

Use a gas fireplace or put glass doors on a wood-burning fireplace. (Be sure to check with the manufacturer first – *some small fireboxes with zero-clearance flues cannot be*

outfitted with glass doors.) Keep the damper closed whenever you're not using the fireplace.

In the summer, do household chores during the coolest part of the day if you can. Cooking, laundry, washing dishes, and heavier work such as vacuuming are examples. Check to see if your electric utility offers time-of-day pricing. That could save you even more money.

HVAC System

Check filters regularly and clean or replace them when needed. Your HVAC technician will tell you how often that's likely to be based on the manufacturer's recommendations and local air quality conditions.

Make sure room vents are working properly. Close them at least part-way in rooms you're not using. Never block them with furniture, pictures, or window coverings.

Consider a zoned system if your home has two or more stories or is very large. A programmable thermostat in each zone can save energy and money.

Then sit back, relax, and enjoy year-round comfort!

Ready to find a contractor near you? Search the ACCA Online Contractor Locator at:
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