

Doug Rye *says ...*



Energy Commandment #4: Thou shalt provide adequate air

Oh my word, its summer-time again! And time to turn the thermostat to cool.

This means that your air conditioner's compressor will start churning out that cold air and the electric meter will run faster. Well, for many of us that is what will happen, but for many others the thermostat will be turned to cool only to find that the air conditioning unit won't cool.

Some systems are just old and worn out. However, some are only a few years old and not working. So you call the local heating and cooling company and a technician comes to your house, says "hello," takes his gauges out of the truck, and goes directly to the outdoor air conditioning unit. He soon returns to tell you that the unit has a mechanical problem or is low on freon. If it is low on refrigerant gas, he charges the system and says "it's okay now." You turn the unit on and sure enough, good cold air is coming out of the registers. All is well for perhaps another year or two and it happens again. Freon is added and all is well for a couple of more years when you find that the compressor is now bad. Let's think about this. If your unit is only three or four years old, why did it lose the freon? A neighbor might have the same unit as you and never have a problem with his/her unit. If the leak is not fixed, it is sure to leak again.

Air conditioner failures can be caused by a number of things. It may be a manufacturer's problem or an installer's mistake. But there's another cause you may not be aware of -- restricted air flow. Restricted air flow will shorten the system's life and reduce the system's performance. Please remember this

famous Doug Rye quote, "An air conditioner cannot blow more air out than it can suck in." In some cases, restricted air flow can be caused by furniture placement. However, it is usually caused by a dirty filter, or an undersized return air filter grill.



How often do you need to change the ac filter in your house? Some say every month, but I'm telling you it is "as needed." Some may need to change them monthly, some every two months, some every six months, etc. As related to return air filter grills, one needs approximately two square feet of filter grill per ton (12,000 British thermal units) of cooling. So if you have a three-ton air conditioning system, you need six square feet of return air filter grill for the system to operate at maximum capacity and not stress the equipment. Remember, it is impossible to oversize the return air system – the larger the return air, the better. I know what many of you are thinking, "Well, my return air is only half the size it needs to be!" Well, the next time the technician comes to your house to add freon or other repairs, ask him about increasing the size of your return air filter grill.

Stay cool and see you next month!

P.S. Before you start calling me, I am very much aware that most air conditioning refrigerant is not now freon, but all readers recognize that term.

Doug Rye, a licensed architect living in Saline County and the popular host of the "Home Remedies" radio show, works as a consultant for the Electric Cooperatives of Arkansas to promote energy efficiency to cooperative members statewide. To order Doug's video or ask energy efficiency-related questions, call Doug at 1-501-653-7931. More energy-efficiency tips, as well as Doug's columns, can also be found at www.ecark.org

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