



iQ
Drive

TIME TO UPDATE CENTRAL AIR

BY JAMES DULLEY

Dear Jim: My old central air conditioner still works, but my electric bills are high during summer. With President Obama's new energy tax credit, does it make sense to switch to a new one now? What type is most efficient?
— Carol J.

Dear Carol: This is one of the best times ever to change out an old central air conditioner for a new one. As you mentioned, the new federal energy tax credit is 30 percent of the installed cost up to \$1,500. Since business is slow, some major air conditioner manufacturers are offering an additional \$1,300 rebate.

From a patriotic standpoint, many of the residential central air conditioners are manufactured in the United States, so buying one can help revitalize our economy. Almost all of the new super-high-efficiency models now use ozone-safe R-410A refrigerant instead of old R-22.

In order to qualify for the \$1,500 federal tax credit (this is a credit, not just a deduction), the central air conditioner must have a SEER (seasonal energy efficiency ratio) of 16 or greater. Your old one likely has a SEER of 10 or less. It must be installed in 2009 or 2010.

The newest design and most efficient central air conditioners provide a SEER of up to 24.5. Installing one of these models would reduce your summertime heating costs by up to 60 percent. It would also dramatically improve your indoor comfort and operate significantly quieter, particularly at night.

These 24.5-SEER models use a super-efficient rotary compressor. Most other models use scroll compressors and some still use reciprocating piston compressors. What makes this rotary compressor so efficient is it uses inverter technology to provide nearly totally variable speed control and cooling output.

Two-level output compressors have been around for many years. They are very reliable and provide adequate comfort for most families. The advantage of two-level cooling is it runs at a lower cooling output level during mild weather. This allows it to run longer for better dehumidification and even indoor temperatures using less electricity. On hot afternoons, it switches to the high-output level.

The inverter technology rotary compressors take this several steps further by providing variable cooling output levels from about 25 percent to maximum cooling output. The matching thermostat is constantly sensing the air temperature and making fine adjustments to the cooling output for maximum comfort and lowest electric bills.

All of the two-and variable-output air conditioners use a variable-speed indoor blower. This not only matches the air flow with the cooling output, but it provides better control of indoor humidity levels. If you select a low humidity level for comfort, the blower slows down so most of the cooling output goes to removing moisture from the air. In addition to the quieter outdoor compressor at slow speed, the indoor blower is also much quieter.

Write for (or instantly download at www.dulley.com) Update Bulletin No. 921, buyer's guide of the most efficient 2009 central air conditioners listing cooling levels, output, SEER, sound level, warranty and a payback chart. Please include \$3 and a business-size, self-addressed, stamped envelope. Send inquiries to James Dulley, 6906 Royalgreen Drive, Cincinnati, OH 45244 or visit www.dulley.com.

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