



UPCOMING CHANGES IN THE AIR CONDITIONING INDUSTRY

SEER RATINGS

All air conditioner and heat pumps are given a SEER (seasonal energy efficiency ratio) rating. This is the ratio of cooling capacity to power consumed (BTUs/watt). Like miles per gallon in a car, a 10 SEER air conditioner uses half as much electricity as a unit rated at 5 SEER. Units produced in the 1960s and 1970s were typically 6 or 7 SEER. Today SEER ratings on some units can exceed 20.

Up until January of this year, the minimum SEER rating allowed on new air conditioners by the federal government was 10, it is now 13. This does not come without cost to the consumer. The low-end air conditioning job that we sold for \$2000 last summer can't be done for less than \$2300 now.

Just because a unit has a high SEER rating doesn't mean it's the best choice for you. Most 16-20 SEER units are too expensive to be cost effective in all but the largest homes. (You won't find this mentioned on any manufacturer's website). Also, a high-end unit can be more costly to repair. The cost of repair may negate several years worth of energy savings.

NEW REFRIGERANTS (FREON)

For the past 50 years, the air conditioning industry has used R-22 refrigerant in the vast majority of its residential products. Clean air laws mandate that no more new units that use R-22 can be produced after 2010, (more or less), and that no more *new* R-22 refrigerant be manufactured after 2020. **However, it should be noted that there should be an adequate supply of recycled R-22 for years after that.**

R-22 is being replaced in most cases with a refrigerant designated as R-410a. R-410a will be able to produce the same cooling capacities and efficiencies as R-22, but consumers should be aware of a few considerations:

1. The lubricating oil used in R-410a systems is not compatible with the lubricating oil used in R-22 systems. There is always residual oil left in the piping and indoor coil sections of an existing air conditioning system when the air conditioner is removed. This means that we will no longer be able to change the outside unit only; we will be required to also change the indoor coil and the piping. (If it isn't buried in a wall or concrete slab).

2. R-410a operates at two or three times the pressure of R-22 and the components are subjected to higher stress. This may have an effect on the longevity of the unit, and may cause a higher incidence of refrigerant leaks.
3. The lubricating oil in an R-410a system has an affinity for moisture. This means that when the inside of the system is left open to the atmosphere (i.e. a broken tube or pipe which is not repaired immediately), the system will begin to absorb moisture out of the air, which may have adverse effect on the system.
4. The cost of R-410a refrigerant per pound is more than double the cost of R-22.
5. The cost of R-410a equipment is higher than R-22 equipment.

WHAT THIS MEANS IN DOLLARS AND CENTS

THE PRICE OF A TYPICAL AIR CONDITIONER REPLACEMENT 2005 VERSUS 2007

2005	2007
New 10 SEER outdoor unit including labor..... \$1250.00	New 13 SEER R410a unit\$2050.00
	New piping\$350.00
	New indoor coil replacement\$850.00
	TOTAL \$3250.00