



# Fact Sheet

California Environmental Protection Agency  
**Air Resources Board**

## THE CLIMATIC IMPACTS OF MOTOR VEHICLE AIR CONDITIONING NON-PROFESSIONAL SERVICING

- ✓ VEHICLE AIR CONDITIONING HAS SOCIETAL BENEFITS
- ✓ VEHICLE AIR CONDITIONING SYSTEMS MUST BE PROPERLY MAINTAINED AND SERVICED TO MINIMIZE ENVIRONMENTAL IMPACTS
- ✓ VEHICLE AIR CONDITIONING REFRIGERANTS ARE VERY POTENT GREENHOUSE GASES
- ✓ PROFESSIONAL SERVICING RESULTS IN LOWER REFRIGERANT EMISSIONS

The Global Warming Impact from one 12-ounce can of refrigerant is approximately equal to:



**974** Pounds of Carbon Dioxide

50 Gallons of Gasoline

1 Barrel of Oil

About 1,200 Miles Driven

**Approximately 4 million cans are sold annually in California. This is equal to:**

- ✚ Avoiding the total emissions from over 2.5 state-of-the-art 500 megawatt (MW) combined-cycle gas-fired power plants for one year.
- ✚ 382,000 passenger cars not driven for one year.
- ✚ Over 201 million gallons of gasoline saved.
- ✚ One year of electricity use by 341,000 average California households.

**Did you know that, on the average...**

- ✚ All motor vehicle air conditioning systems leak, but they are small leaks. The average California passenger car has a refrigerant leak rate of approximately 2 ounces per year and newer systems leak even less.
- ✚ The average new system requires a re-charge after 6 to 8 years. However, older systems may require re-charging more often.
- ✚ The non-professional servicing her automobile uses a little more than half of the refrigerant in the can. The remainder is discarded and eventually emitted to the atmosphere.
- ✚ Professional air conditioning technicians require special equipment for leak detection, refrigerant identification, and refrigerant evacuation/re-charge to service a motor vehicle air conditioner. The use of this equipment minimizes unintended releases.
- ✚ Since 1996, the State of Wisconsin prohibits the retail sale of small cans of refrigerant for re-charging air conditioning systems and requires professional technicians to repair all leaks prior to refrigerant re-charge.

For More Information:

Please contact the ARB toll-free at (800) 363-7664 (California only) or (800) 272-4572. For information on the ARB's Climate Change Program, visit [www.arb.ca.gov/cc/cc.htm](http://www.arb.ca.gov/cc/cc.htm). You may Obtain this document in an alternative format by contacting ARB's Americans with Disabilities Act Coordinator at (916) 322-4505 (voice); (916) 324-9531 (TDD, Sacramento only); or (800) 700-8326 (TDD, outside Sacramento).