

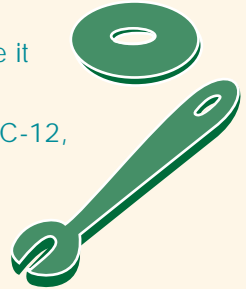
# HOW TO KEEP YOUR *COOL* and Protect the Ozone Layer

**A**ir conditioners in most motor vehicles manufactured before 1994 use a refrigerant called CFC-12, which is a chlorofluorocarbon (CFC). CFCs damage the ozone layer, which protects the earth from the sun's harmful ultraviolet rays. As a result, the United States and all other developed nations have agreed under an international treaty to ban the production of CFCs.

While this ban does not mean you have to replace your air conditioner's refrigerant, you may want to discuss this option with your service technician if your air conditioner needs repairs. To accommodate an alternative refrigerant, your air conditioning system must be adapted or retrofitted. It may be more cost-effective to retrofit in conjunction with routine maintenance.

You can ask your service technician the following questions to determine if your car uses CFC-12, and what you can do about it:

- Does my air conditioner currently use CFC-12?
- Can you repair my air conditioner and recharge it with CFC-12?
- How much will it cost if I choose to stay with CFC-12, now and in the future?
- If I decide to change refrigerants, what other refrigerants are available?
- What is involved in retrofitting my car?
- How much will retrofitting my car cost, now and in the future?
- Will a retrofit affect the performance of my air conditioning system?
- If I need to repair the system in the future, will I be able to find the same refrigerant I used to replace the CFC-12?



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Name of Service Station: \_\_\_\_\_

Date of Service: \_\_\_\_\_

Type of Work Done: \_\_\_\_\_

Type of Refrigerant Used: \_\_\_\_\_



All service technicians handling air conditioner refrigerants must be certified by the U.S. Environmental Protection Agency (EPA) and should be able to answer all of your air conditioner repair questions. See below for more information on the connection between CFCs and the environment.

If you choose to retrofit your vehicle's air conditioning system, you may want to fill in the card on the front to keep with your records.

## UNDERSTANDING THE CONNECTION:

### Motor Vehicle Air Conditioners and the Environment

Do you keep hearing about a hole in the ozone layer? Ever wonder if you can help? If you own a motor vehicle, the answer is yes, you can! Most automobiles use CFC-12, a refrigerant that damages the ozone layer whenever it leaks out of the car.

If your vehicle's air conditioner needs repairs and currently uses CFC-12, you have two options:

- **Repair and Retrofit:** You can convert your car's air conditioning system to use a refrigerant that is safer for the ozone layer. There are no laws requiring you to retrofit your air conditioning system to use a different refrigerant.
- **Repair and Recharge:** You can keep using CFC-12 until the current supply is used up. This may be the most cost-effective option if you are not planning to keep your car for very long.

The costs to retrofit your air conditioner will vary depending on the complexity of the retrofit and the cost of parts and labor. Retrofitting may help save you money by avoiding the purchase of CFC-12, which is becoming more expensive as supplies run out.

Replacement refrigerants must be reviewed by EPA. Of the refrigerants that EPA has found acceptable, HFC-134a is the only refrigerant vehicle manufacturers recommend as a replacement for CFC-12. HFC-134a is ozone-safe and is used in the production of all new vehicle air conditioning systems. It may not work as a retrofit refrigerant in every vehicle, however. Be sure to ask your vehicle manufacturer, service technician, or refrigerant manufacturer whether you should retrofit your car using HFC-134a or another alternative refrigerant, or continue to use CFC-12.

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For more information on vehicle air conditioning retrofits, CFCs, or the ozone layer, contact EPA's Stratospheric Protection Hotline at 800 296-1996. You can request a copy of the publication *It's Your Choice: Retrofitting Your Car's A/C System* (EPA430-F-97-052). You can also visit EPA's motor vehicle air conditioners Web site at (<http://www.epa.gov/ozone/title6/609/>).