

Emission Controls

Sources of Emissions

The combustion process produces carbon monoxide (CO), oxides of nitrogen (NO_x) and hydrocarbons. The evaporation of fuel in the fuel tank also produces hydrocarbons. Control of oxides of nitrogen and hydrocarbons is very important since, under certain conditions, when subjected to sunlight, they react to form photochemical smog. Carbon monoxide does not react to form smog, but it is toxic.

The Clean Air Act

The Clean Air Act* requires all vehicle manufacturers to explain in writing the operation and maintenance of their emission control systems.

Maintenance instructions are included on pages [103-108](#); the operation of each system is explained below and on the following page.

Replacement Parts

The emission control systems on your new Honda were designed, built and certified to conform with the Federal regulations implementing the Clean Air Act. Honda recommends only the use of new, Genuine Honda parts or their equivalent. The use of other replacement parts, which are not of equivalent quality, may impair the effectiveness of your car's emission control systems.

Evaporative Emission Control System

The Evaporative Emission Control System is designed to prevent fuel vapors from escaping into the atmosphere.

Fuel vapors from the fuel tank are directed into the charcoal canister where they are adsorbed and stored while the engine is stopped or idling. When the coolant temperature rises to a certain value, the vapors are drawn into the engine through the throttle body and the intake manifold during normal engine operation.

*In Canada, Honda vehicles comply with the Canadian Motor Vehicle Safety Standards (CMVSS) on Emissions valid at the time they are manufactured.

Crankcase Emission Control System

To prevent crankcase emissions, your car is equipped with a Positive Crankcase Ventilation (PCV) System, which routes blowby gases from the crankcase, through the PCV valve and intake manifold, into the combustion chamber.

Engine Exhaust Controls

The engine exhaust emission control systems are designed to control combustion during idle, acceleration, cruise, and deceleration. These systems are entirely separate from the crankcase and evaporative emission control systems described previously.

- **PGM-FI System**

The PGM-FI System on this model is a sequential multiport fuel injection. It consists of three independent subsystems; Air Intake. Electronic Control and Fuel Control, thus allowing more accurate control of air/fuel ratios under all operating conditions. The Electronic Control Module (ECM) detects the amount of air drawn into the cylinders and determines the amount of fuel to be injected to provide the optimum air/fuel ratio for all engine needs.

- **Ignition Timing Control System**

This system automatically controls the ignition timing to reduce the amount of HC and NO_x.

- **Three-way Catalytic Converter**

The three-way catalytic converter is used to convert hydrocarbons (HC), carbon monoxide (CO) and oxides of nitrogen (NO_x) in the exhaust gas, to carbon dioxide (CO₂), dinitrogen (N₂) and water vapor.

- **Exhaust Gas Recirculation (EGR)**

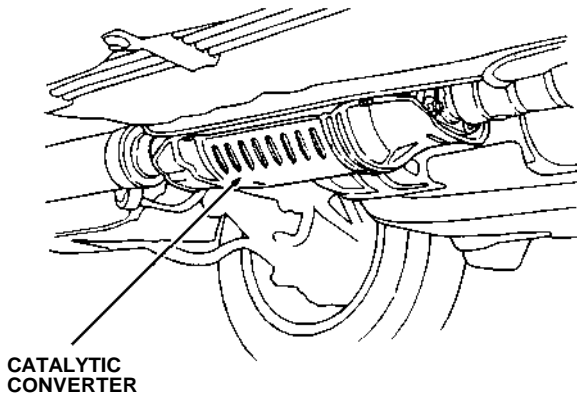
The EGR system is designed to control the formation of oxides of nitrogen (NO_x) caused when the fuel mixture burns at high temperature. It works by recirculating exhaust gas through the Exhaust Gas Recirculation valve and intake manifold into the combustion chambers where it reduces peak temperature by diluting the air/fuel mixture.

Three-way Catalytic Converter

A three-way catalytic converter is installed in the exhaust system to help clean up the harmful exhaust gases that can cause air pollution.

To be effective, the converter must work at high temperature, so don't park your car over dry grass, leaves or anything else that could burn easily.

To stay effective, the converter must not be contaminated by leaded gasoline; use only unleaded gas as explained on page [84](#).



CAUTION: The converter can be overheated and damaged if it's fed too much unburned fuel mixture from the engine, so:

- Don't push or tow the car to start it; if the battery is dead, jump start the car as shown on pages [145-146](#).
- Don't turn the key off while the engine is running above idle speed.
- Don't change the ignition timing, or remove any emission control parts.
- Use only the spark plugs specified in this manual.
- Don't keep driving your car if it isn't running properly, or if its CHARGE warning light or check engine light comes on; have it checked by your Honda dealer.

Warranty Service

Warranty (US Cars)

The following warranties are provided with every new vehicle.

1. New Car Limited Warranty
2. Emissions-Related Defects Warranty
3. Emissions Performance Warranty
4. Original Equipment Battery Limited Warranty
5. Rust Perforation Limited Warranty
6. Accessory Limited Warranty
7. Replacement Parts Limited Warranty
8. Replacement Muffler Lifetime Limited Warranty
9. Seat Belt Limited Warranty
10. Replacement Battery Limited Warranty

Your car's original tires are covered by their manufacturer. Tire warranty information is in a separate tire warranty booklet.

The details of all warranties pertaining to your car can be found in the Warranty booklet provided with your new car. The required maintenance schedule is contained in this Owner's Manual.

If you are unable to obtain warranty service or are dissatisfied with the warranty decision or service you received at an authorized Honda dealership, you should review the matter with that dealership's Service Manager. This will normally resolve your problem. If it does not, you should appeal the decision with the owner of the dealership. Please bear in mind that your problem will likely be resolved in the dealership, using the dealer's facilities, equipment, and personnel. So it is very important that your initial contact be with the dealer or his management.

After following these steps, if you wish to have the matter reviewed by American Honda you should contact the Zone Office serving your area, as shown on the map on the inside of the back cover. When contacting American Honda, please provide the Zone Office with the following information:

- Vehicle Identification Number
- Servicing Dealer Name and Address
- Date of Purchase
- Mileage on Your Car
- Your Name, Address, and Phone Number
- Nature of Problem
- Selling Dealer

After a review of the facts, you will be advised of what can be done.

(Canada Cars)

Please refer to the 1993 Warranty and Maintenance Guide that came with your car.

Reporting Safety Defects

(US Cars)

If you believe that your vehicle has a defect which could cause a crash or cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying American Honda Motor Co, Inc.

If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or American Honda Motor Co., Inc.

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 366-0123 in the Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C.20590. You can also obtain other information about motor vehicle safety from the Hotline.