# **Emission Control Systems**

#### Source of Emission

The combustion process produces carbon monoxide (CO), oxides of nitrogen (NOx), and hydrocarbons (HC).

Control of hydrocarbons and oxides of nitrogen is very important because, under certain conditions, they react to form photochemical smog when subjected to sunlight. Carbon monoxide does not react in the same way, but it is toxic.

Honda Motor Co., Ltd. utilizes various systems to reduce carbon monoxide, oxides of nitrogen and hydrocarbons.

### **Exhaust Emission Control System**

The exhaust emission control system includes the following components that should not need adjustment, although periodic inspection by your dealer is recommended.

### PGM-FI System

The PGM-FI system has four subsystems: Air Intake, Engine Control, Fuel Control, and Exhaust Control.

The Engine Control Module (ECM) uses various sensors to determine how much air is going into the engine. It then controls how much fuel is injected under all operating conditions.

## **Ignition Timing Control System**

The ignition timing control system adjusts the ignition timing to reduce the amount of HC, CO, and NOx produced.

### Secondary Air Injection System

The exhaust emission control system consists of a secondary air injection system.

The secondary air injection system introduces filtered air into the exhaust gases in the exhaust port. The secondary air injection system helps improve emission control performance. No adjustments to this system should be made although periodic inspection of the components is recommended.

### **Evaporative Emission Control System**

An evaporative emissions control system uses a canister filled with charcoal to adsorb fuel vapor from the fuel tank while the engine is off. The vapor is drawn into the engine and burned while riding.

Models sold in and used in California: An add-on or modified part must be compliant with applicable ARB evaporative emission control standards. A violation of this requirement is punishable by civil and/or criminal punishment.

### **Crankcase Emission Control System**

The engine is equipped with a closed crankcase system to prevent discharging crankcase emissions into the atmosphere. Blow-by gas is returned to the combustion chamber through the crankcase oil separator, air cleaner and throttle body.

### **Fuel Permeation Emission Control System**

This vehicle complies with the Fuel Permeation Emission Control regulations of the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB). The fuel tank, fuel hoses, and fuel vapor charge hoses used on this vehicle incorporate fuel permeation control technologies. Tampering with the fuel tank, fuel hoses, or fuel

Tampering with the fuel tank, fuel hoses, or fuel vapor charge hoses to reduce or defeat the effectiveness of the fuel permeation technologies is prohibited by federal regulations.