Tire Pressure Monitoring System (TPMS) – Required Federal Explanation

Each tire, including the spare (if provided), should be checked monthly when cold and inflated to the inflation pressure recommended by the vehicle manufacturer on the vehicle placard or tire inflation pressure label.

(If your vehicle has tires of a different size than the size indicated on the vehicle placard or tire inflation pressure label, you should determine the proper tire inflation pressure for those tires.)

As an added safety feature, your vehicle has been equipped with a tire pressure monitoring system (TPMS) that illuminates a low tire pressure telltale



when one or more of your tires is significantly under-inflated.

Accordingly, when the low tire pressure telltale illuminates, you should stop and check your tires as soon as possible, and inflate them to the proper pressure.

Driving on a significantly under-inflated tire causes the tire to overheat and can lead to tire failure. Under-inflation also reduces fuel efficiency and tire tread life, and may affect the vehicle's handling and stopping ability.

Please note that the TPMS is not a substitute for proper tire maintenance, and it is the driver's responsibility to maintain correct tire pressure, even if under-inflation has not reached the level to trigger illumination of the TPMS low tire pressure telltale.

CONTINUED

Tire Pressure Monitoring System (TPMS) − Required Federal Explanation

Your vehicle has also been equipped with a TPMS malfunction indicator to indicate when the system is not operating properly. The TPMS malfunction indicator is provided by a separate telltale, which displays the symbol “TPMS” when illuminated.

When the malfunction indicator is illuminated,



the system may not be able to detect or signal low tire pressure as intended.

TPMS malfunctions may occur for a variety of reasons, including the installation of replacement or alternate tires or wheels on the vehicle that prevent the TPMS from functioning properly.

Always check the TPMS malfunction telltale after replacing one or more tires or wheels on your vehicle to ensure that the replacement or alternate tires and wheels allow the TPMS to continue to function properly.

The burning of gasoline in your vehicle's engine produces several by-products. Some of these are carbon monoxide (CO), oxides of nitrogen (NOx), and hydrocarbons (HC). Gasoline evaporating from the tank also produces hydrocarbons. Controlling the production of NOx, CO, and HC is important to the environment. Under certain conditions of sunlight and climate, NOx and HC react to form photochemical "smog." Carbon monoxide does not contribute to smog creation, but it is a poisonous gas.

The Clean Air Act
The United States Clean Air Act* sets standards for automobile emissions. It also requires that automobile manufacturers explain to owners how their emissions controls work and what to do to maintain them. This section summarizes how the emissions controls work. Scheduled maintenance is on page 382.

* In Canada, Acura vehicles comply with the Canadian emission requirements, as specified in an agreement with Environment Canada, at the time they are manufactured.

Crankcase Emissions Control System
Your vehicle has a positive crankcase ventilation system. This keeps gasses that build up in the engine's crankcase from going into the atmosphere. The positive crankcase ventilation valve routes them from the crankcase back to the intake manifold. They are then drawn into the engine and burned.

Evaporative Emissions Control System
As gasoline evaporates in the fuel tank, an evaporative emissions control canister filled with charcoal adsorbs the vapor. It is stored in this canister while the engine is off. After the engine is started and warmed up, the vapor is drawn into the engine and burned during driving.

Onboard Refueling Vapor Recovery
The onboard refueling vapor recovery (ORVR) system captures the fuel vapors during refueling. The vapors are adsorbed in a canister filled with activated carbon. While driving, the fuel vapors are drawn into the engine and burned off.

Emissions Controls

Exhaust Emissions Controls

The exhaust emissions controls include four systems: PGM-FI, ignition timing control, exhaust gas recirculation, and three way catalytic converter. These four systems work together to control the engine's combustion and minimize the amount of HC, CO, and NOx that come out the tailpipe. The exhaust emissions control systems are separate from the crankcase and evaporative emissions control systems.

PGM-FI System

The PGM-FI system uses sequential multiport fuel injection.
It has three subsystems: air intake, engine control, and fuel control. The powertrain control module (PCM) uses various sensors to determine how much air is going into the engine. It then controls how much fuel to inject under all operating conditions.

Ignition Timing Control System

This system constantly adjusts the ignition timing, reducing the amount of HC, CO, and NOx produced.

Exhaust Gas Recirculation (EGR) System

The exhaust gas recirculation (EGR) system takes some of the exhaust gas and routes it back into the intake manifold. Adding exhaust gas to the air/fuel mixture reduces the amount of NOx produced when the fuel is burned.

Three Way Catalytic Converter

The three way catalytic converter is in the exhaust system. Through chemical reactions, it converts HC, CO, and NOx in the engine's exhaust to carbon dioxide (CO_2), nitrogen (N_2), and water vapor.

Replacement Parts

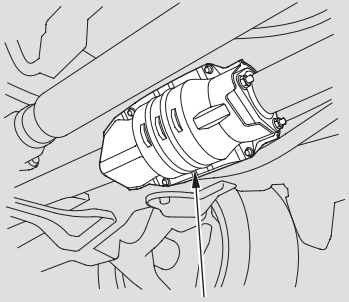
The emissions control systems are designed and certified to work together in reducing emissions to levels that comply with the Clean Air Act. To make sure the emissions remain low, you should use only new Acura replacement parts or their equivalent for repairs. Using lower quality parts may increase the emissions from your vehicle.

The emissions control systems are covered by warranties separate from the rest of your vehicle. Read your warranty manual for more information.

Three Way Catalytic Converter

The three way catalytic converter contains precious metals that serve as catalysts, promoting chemical reactions to convert the exhaust gasses without affecting the metals. The catalytic converter is referred to as a three-way catalyst, since it acts on HC, CO, and NOx. A replacement unit must be an original Acura part or its equivalent.

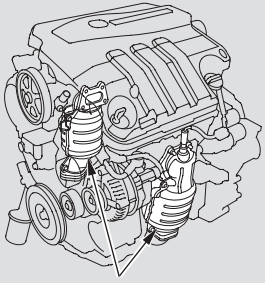
The three way catalytic converter must operate at a high temperature for the chemical reactions to take place. It can set on fire any combustible materials that come near it. Park your vehicle away from high grass, dry leaves, or other flammables.



THREE WAY CATALYTIC CONVERTER

A defective three way catalytic converter contributes to air pollution, and can impair your engine's performance. Follow these guidelines to protect your vehicle's three way catalytic converter.

- Always use unleaded gasoline. Even a small amount of leaded gasoline can contaminate the catalyst metals, making the three way catalytic converter ineffective.



WARM UP THREE WAY CATALYTIC CONVERTER

- Keep the engine well maintained.
- Have your vehicle diagnosed and repaired if it is misfiring, backfiring, stalling, or otherwise not running properly.

State Emissions Testing

Testing of Readiness Codes
If you take your vehicle for a state emissions test shortly after the battery has been disconnected or gone dead, it may not pass the test. This is because of certain “readiness codes” that must be set in the on-board diagnostics for the emissions systems. These codes are erased when the battery is disconnected, and set again only after several days of driving under a variety of conditions.

If the testing facility determines that the readiness codes are not set, you will be requested to return at a later date to complete the test. If you must get the vehicle retested within the next two or three days, you can condition the vehicle for retesting by doing the following.

- Make sure the gas tank is nearly, but not completely, full (around 3/4).
- Make sure the vehicle has been parked with the engine off for 6 hours or more.
- Make sure the ambient temperature is between 40° and 95°F.
- Without touching the accelerator pedal, start the engine, and let it idle for 20 seconds.
- Keep the vehicle in Park. Increase the engine speed to 2,000 rpm, and hold it there until the temperature gauge rises to at least 1/4 of the scale (about 3 minutes).

- Select a nearby lightly traveled major highway where you can maintain a speed of 50 to 60 mph for at least 20 minutes. Drive on the highway in D. Do not use the cruise control. When traffic allows, drive for 90 seconds without moving the accelerator pedal. (Vehicle speed may vary slightly; this is okay.) If you cannot do this for a continuous 90 seconds because of traffic conditions, drive for at least 30 seconds, then repeat it two more times (for a total of 90 seconds).
- Then drive in city/suburban traffic for at least 10 minutes. When traffic conditions allow, let the vehicle coast for several seconds without using the accelerator pedal or the brake pedal.
- Make sure the vehicle has been parked with the engine off for 30 minutes.

If the testing facility determines the readiness codes are still not set, see your dealer.