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| **Model Year:** 2013 | **Model:** RAV4 | **Prod Date Range:** [12/2012 - ] |
| **Title:** 2AR-FE EMISSION CONTROL: EMISSION CONTROL SYSTEM: GENERAL; 2013 MY RAV4 [12/2012 - ] | | |

# GENERAL

## 1. OUTLINE

(a) Exhaust Emission Control System

(1) Three-Way Catalysts (TWCs) are used to reduce emissions in the exhaust gas.

(2) Based on the signals from the air fuel ratio sensor and oxygen sensor, the ECM controls the fuel injection volume in order to optimize the emissions in the exhaust gas.

(b) Evaporative Emission Control System

(1) The evaporative emission control system prevents the fuel vapor that is created in the fuel tank assembly from being released directly into the atmosphere. This system has the following controls:

- Purge flow control
- Onboard Refueling Vapor Recovery (ORVR)
- Evaporative emission (EVAP) leak check

(2) The charcoal canister assembly stores the fuel vapor that has been created in the fuel tank assembly.

(3) This system consists of a purge VSV, charcoal canister assembly, canister pump module and ECM.

(4) The ECM controls the purge VSV in accordance with the driving conditions in order to direct the fuel vapor into the engine, where it is burned.

(5) In this system, the ECM checks for evaporative emission leaks and stores Diagnostic Trouble Codes (DTCs) in the event of a malfunction. An evaporative emission leak check consists of an application of vacuum to the evaporative emission system and the ECM monitoring the system for changes in pressure in order to detect a leak.

(6) A canister pressure sensor is included in the canister pump module.

(7) A No. 1 charcoal canister filter is provided on the fresh air line. This No. 1 charcoal canister filter is maintenance-free.