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| **Last Modified:** 03-12-2013 | 6.4 F | **Doc ID:** NM1000000004XON |
| **Model Year:** 2013 | **Model:** RAV4 | **Prod Date Range:** [12/2012 - ] |
| **Title:** 2AR-FE BATTERY / CHARGING: CHARGING SYSTEM: CHARGING CONTROL; 2013 MY RAV4 [12/2012 - ] | | |

# CHARGING CONTROL

## 1. SYSTEM CONTROL

(a) When whole status of driving, this system regulates the generated voltage in order to place the amperage estimation value close to the target value. This reduces the load on the engine as a result of the electric generation of the generator, thus contributing to the fuel economy of the engine.

(b) This control consists of a generator control ECU assembly with a built-in battery current sensor and battery temperature sensor, generator, various sensors, switches and ECM.

(c) The ECM detects the driving condition based on signals from various sensors and switches generator control ECU assembly detects the charging condition based on signals from the generator assembly, battery currentsensor and battery temperatur sensor. The ECM determines the vehicle driving conditions, and based on this information, the generator control ECU assembly sends a voltage request signal to the generator assembly.

(d) The generator control ECU assembly stops the charging control and the generator switches to normal power generation mode under the following conditions:

(1) Low battery capacity

(2) Low battery temperature

(3) Battery current sensor or battery temperature sensor malfunction

(4) Engine started

(5) Communication failure (local communication between generator control ECU assembly and ECM)

(6) Generator assembly malfunction

(7) Battery charged for approximately 2.5 to 4 hours

(8) Accumulated driving time becomes approximetely 20 hours