

Component Procedures: Voltage Regulator

Table of Contents

1. Components (itype_392)

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DESCRIPTION

The Electronic
Voltage Regulator

(
EVR
)

is not a separate component. It is actually a voltage regulating circuit located within the Powertrain Control Module (PCM)

. The EVR is not serviced separately. If replacement is necessary, the PCM must be replaced.

OPERATION

The amount of DC current produced by the generator

is controlled by EVR circuitry contained within the PCM. This circuitry is connected in series with the generator's second rotor field terminal and its ground

. Voltage is regulated by cycling the ground path to control the strength of the rotor magnetic field. The EVR circuitry monitors system line voltage and battery

temperature (refer to Battery Temperature Sensor

for more information). It then compensates and regulates generator current output accordingly. Also refer to Charging System

Operation for additional information.