Service Steering System Message On, Diagnostic Trouble Code (DTC) C0450 or C1241 Set (Replace Variable Effort Steering (VES) Solenoid) #03-02-36-001A - (Mar 16, 2004)

Service Steering System Message On, Diagnostic Trouble Code (DTC) C0450 or C1241 Set (Replace Variable Effort Steering (VES) Solenoid)

2003-2004 Cadillac CTS

2004 Cadillac CTS-V

with Variable Effort Steering (RPO FE3) or Suspension System Special Ride and Handling (RPO FE4)

This bulletin is being revised to add the CTS-V and update the service solenoid used. Please discard Corporate Bulletin #03-02-36-001 (Section 02 - Steering)

**Condition**

Some customers may comment that the Service Steering Message on the Driver's Information Center (DIC) comes on. DTC C0450 or C1241 may also be set.

**Cause**

This condition may be caused by an internal fault in the VES solenoid.

**Correction**

<table>
<thead>
<tr>
<th>DO THIS</th>
<th>DON'T DO THIS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Replace the VES Solenoid P/N 89060234

DO NOT Replace The Following Steering Gears

<table>
<thead>
<tr>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>25756607</td>
</tr>
<tr>
<td>25700891</td>
</tr>
<tr>
<td>25767047</td>
</tr>
<tr>
<td>25767201</td>
</tr>
</tbody>
</table>

Follow the service procedure below for the diagnosis and repair of this condition:

1. Raise and support the vehicle. Refer to Lifting and Jacking the Vehicle in General Information. Refer to SI Document ID # 813128.
2. Remove the left front tire and wheel. Refer to Tire and Wheel Removal and Installation in Tires and Wheels, SI Document ID #856546.
3. Remove the push-in retainers securing the air deflector to the vehicle.
4. Remove the front air deflector.
5. Clean any dirt or debris from the VES solenoid connector.
6. Disconnect the VES solenoid harness retainers and electrical connector.
7. Measure the resistance of the VES actuator.
   - If the resistance IS between 5.7-7.2 ohms, for 2003 model years, continue with DTC C1241 Diagnosis. Refer to SI Document ID #813282. For 2004 model years, DTC C0450, refer to SI Document ID #1219432.
   - If the resistance IS NOT between 5.7-7.2 ohms, continue with the next step.

**Important**

Clean any dirt or debris from the VES solenoid and solenoid to gear mounting area. Avoid all dirt or debris from entering the steering gear and contaminating the power steering system possibly causing premature gear and/or pump failure.
8. Using the open end crows foot provided with the solenoid, remove the VES solenoid from the steering gear.

**Important**

DO NOT replace the complete steering gear.

9. Install the new VES solenoid, P/N 89060234, into the steering gear with the open end crows foot provided with the solenoid. **Tighten**

Tighten the VES solenoid to 21 N·m (4.71 lb ft).

10. Connect the VES harness connector and retainers.
11. Reinstall the air deflector and retainers.
12. Reinstall the left front wheel and tire. Refer to Tire and Wheel Removal and Installation in Tires and Wheels, SI Document ID #856546.
13. Lower the vehicle
14. Clear the code and road test the vehicle.

**Parts Information**
### Part Number Description

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>89060234</td>
<td>Solenoid, Variable Effort Steering</td>
</tr>
</tbody>
</table>

Parts are expected to be available from GMSPO on April 5, 2004.

**Warranty Information**

For vehicles repaired under warranty, use:

<table>
<thead>
<tr>
<th>Labor Operation</th>
<th>Description</th>
<th>Labor Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>E9750</td>
<td>Solenoid, Variable Effort Steering, Replace.</td>
<td>0.7 hr</td>
</tr>
<tr>
<td>ADD A:</td>
<td>Diagnosis</td>
<td>0.0-0.3 hr</td>
</tr>
</tbody>
</table>

GM bulletins are intended for use by professional technicians, NOT a "do-it-yourselfer". They are written to inform these technicians of conditions that may occur on some vehicles, or to provide information that could assist in the proper service of a vehicle. Properly trained technicians have the equipment, tools, safety instructions, and know-how to do a job properly and safely. If a condition is described, DO NOT assume that the bulletin applies to your vehicle, or that your vehicle will have that condition. See your GM dealer for information on whether your vehicle may benefit from the information.

© Copyright General Motors Corporation. All Rights Reserved.