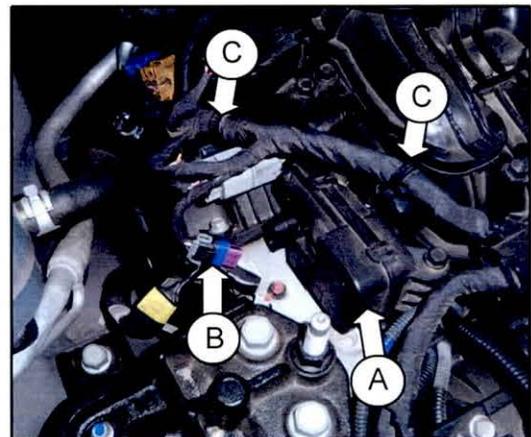


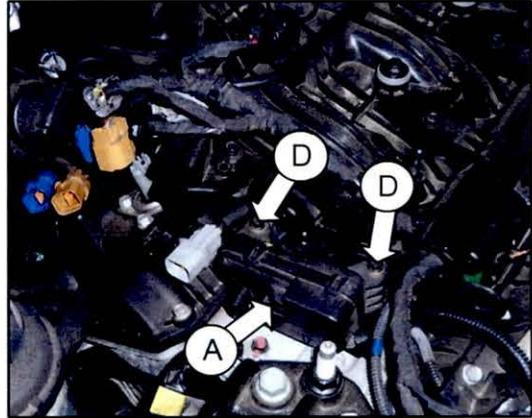
| | | |
|--|-----------------|--|
|  | GROUP Engine | MODEL Sorento (XM) 2011 - 2013MY |
| | NUMBER PS271 | DATE April 2013 |
|   | | |
| SUBJECT: SERVICE PROCEDURE: VCMA ACTUATOR REPLACEMENT | | |

This article provides the replacement procedure for the VCMA (Variable Charge Motion Actuator) on some 2011-2013 Sorento vehicles, equipped with a 3.5L V6 engine, which may experience an illuminated Malfunction Indicator Lamp (MIL) and drivability concerns. Follow the procedure outlined below to correct the concern.

1. Verify the customer complaint and diagnose following KGIS information, using specific DTC information and trouble trees as appropriate.
2. If diagnosis indicates that VCMA needs to be replaced, ONLY replace the actuator itself as described below. Do not remove/replace the intake manifold.
3. Remove the engine cover.
4. Remove harness connector (B) from the VCMA (A) and all other associated connectors and retaining clips (C). Also, move the harness away from the VCMA.



5. Remove two mounting bolts (D) securing the VCMA (A) to the intake manifold.



6. Using a trim clip removal tool (E), apply pressure to separate the control arm (F) from the attachment point on the VCMA control lever.

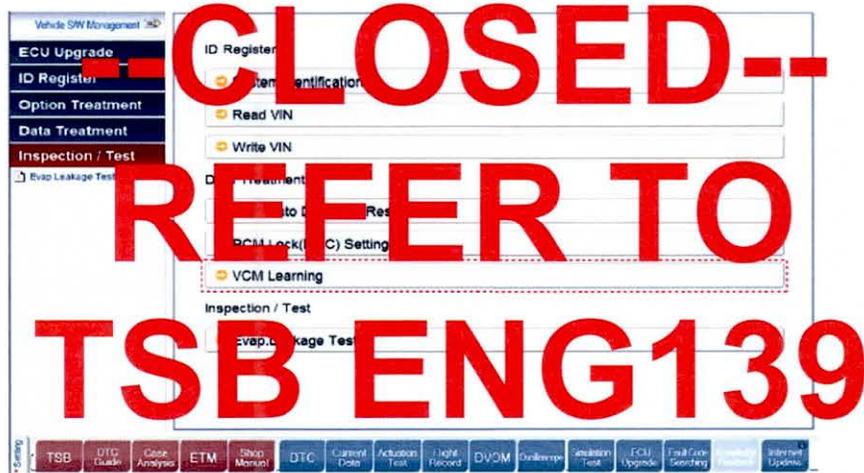


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REFER TO
TSB ENG139

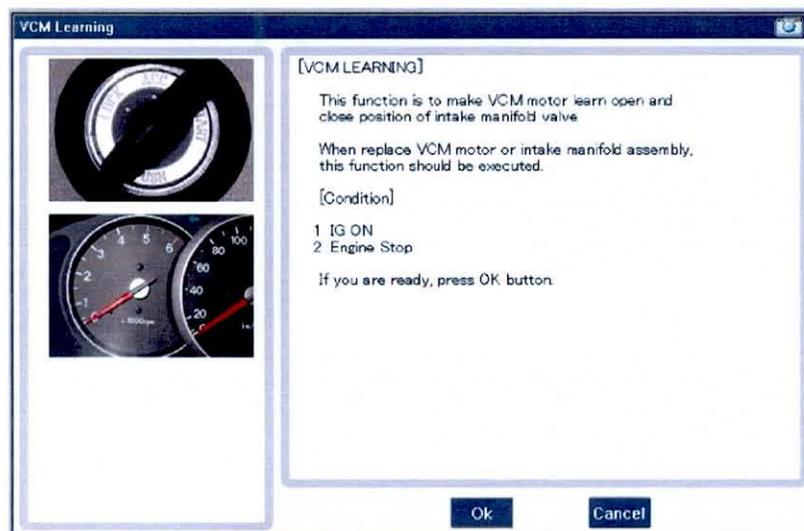
7. Remove the VCMA from the vehicle.
8. Install the new VCMA and re-attach the control arm.
Variable charge motion actuator bolt torque: 8.0 ~ 11.0 Nm (5.9 ~ 8.1 lb-ft).
9. Re-install all other components by reversing the removal process.

10. Perform a relearn procedure as outlined below, otherwise a performance related concern may reoccur resulting in a repeat repair.

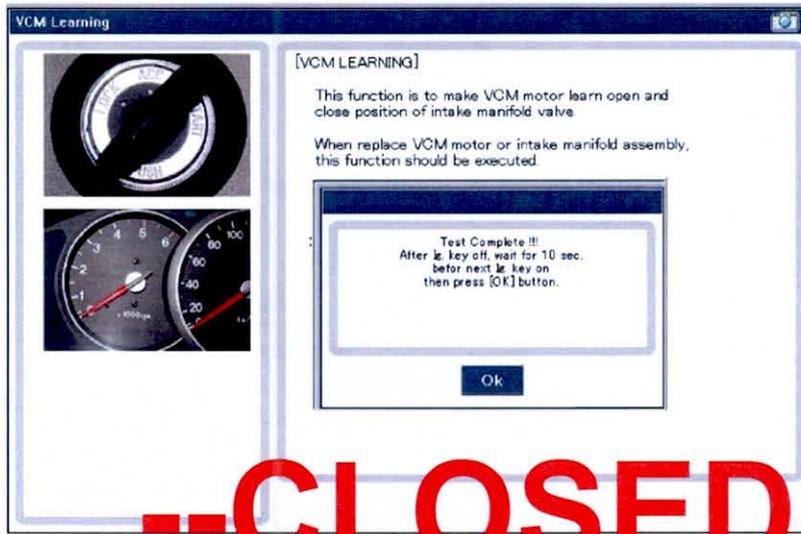
- Turn OFF the ignition switch
- Connect GDS to the Data Link Connector (DLC)
- Turn the ignition switch ON
- Select the "Vehicle", "Model year", "Engine" and "System"
- Select the "Vehicle S/W Management"
- Select "Inspection/Test"
- Select "Inspection/Test"



- Perform the VCM learning procedure according to the message on the GDS screen.



- Follow the on screen instructions to finalize the test.



11. Test drive the vehicle to verify normal operation and no recurrence of MIL on.

12. Submit a warranty claim using the new Op Code for VCMA replacement and GDS operation, as shown below.

| Op Code | Description | Time |
|----------|---------------------------------------|------|
| 28325R1L | VCM(Lambda Engine), R&R | 0.3 |
| 28325RQ0 | Diagnostic Tool Operation - VCM motor | 0.3 |



KIA MOTORS

KIA MOTORS AMERICA, INC.
Corporate Headquarters
111 Peters Canyon Rd.
Irvine, CA 92606
TEL: (949) 468-4800
FAX: (949) 468-4905

September 4, 2013

Mr. Daniel C. Smith
Associate Administrator for Enforcement
National Highway Traffic Safety Administration
1200 New Jersey Avenue, SE, West Building
Washington, DC 20590

Dear Mr. Smith:

Pursuant to the TREAD ACT and CFR 579.5, KIA Motors America, Inc. is submitting to NHTSA the following documents for the month ending August, 2013:

TECHNICAL SERVICE BULLETINS

| | | |
|---------------|--------|--|
| TSB-102 | Body | Seat Back Cover Removal Procedure – Sorento (XMA), Optima (TF/TF HEV/QF) |
| TSB-120(Rev1) | Engine | 2008-2011 MY Rio Muffler Pipe Hanger Bracket Replacement |
| TSB-093(Rev1) | Body | 2011-13 Sorento Second Row Seat Inoperative or Difficult to Release |
| TSB-040 | CHA | 2012 MY Optima (TF/QF), 2011-12 MY Optima (TF H/EV) Service Action: Rear Lower Control Arm Replacement Procedure (SA150) |

PITSTOP

| | | |
|--------|------------|--|
| PS-274 | Restraints | 2011-2013 MY Optima (TF/QF) 2010-2013 MY Forte ACU Variant Coding After Parts Supersession |
| PS-273 | Electrical | Cadenza AVN Head-Unit and/or Monitor Replacement |

TECH TIMES

Volume 16, Issue 3

If you have any questions or comments regarding this matter, please contact me at (949) 468-4731 during normal business hours.

Sincerely,

J. S. Park, Executive Director
Product Litigation and Regulatory Compliance
Kia Motors America, Inc
111 Peters Canyon Road
Irvine, CA 92606

Attachments – Seven (7)