

2006 Chevrolet EQUINOX

Submodel: LT | Engine Type: V6 | Liters: 3.4
Fuel Delivery: FI | Fuel: GAS



Subject: LNJ Service Engine Soon (SES) Light On, Multiple Powertrain Control Module (PCM) Diagnostic Trouble Code (DTC) P1404 and/or P0404 (Install EGR Valve/Gasket/Pipe/Wiring Harness Connector, Reprogram PCM) #06-06-04-008B - (03/19/2007)

Models: 2005-2006 Chevrolet Equinox

2006 Pontiac Torrent

with 3.4L V6 Engine (VIN F -- RPO LNJ)

Built Prior to January 25, 2006

This bulletin is being revised to update the first Important statement in the Correction section. Please discard Corporate Bulletin Number 06-06-04-008A (Section 06 -- Engine/Propulsion System).

Condition

Some customers may comment on a Service Engine Soon (SES) light illuminated on the instrument cluster. Some vehicles may have previously been serviced for this same condition. Technicians may also find a DTC P1404 and/or DTC P0404, which may have led to previous exhaust gas recirculation (EGR) valve and PCM replacements.

Correction

Important

The following EGR valve service parts kit, P/N 89018176, contains all the required individual parts needed to perform an EGR system change-over for the vehicles listed in this bulletin only. Please be advised that some early produced kits may contain an instruction sheet that has an error in the wiring portion of the procedure. Therefore, it is advised that the instructions included in the kit be discarded and that only the instructions contained in the bulletin be used.

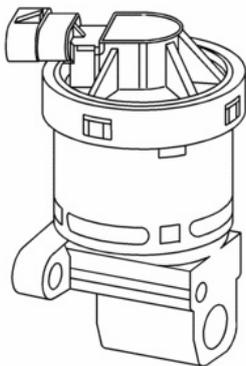
- P/N 12581876 -- EGR Valve
- P/N 12593632 -- EGR Gasket
- P/N 12602507 -- Pipe Assembly, EGR Valve
- P/N 15306175 -- Wiring Harness Connector, EGR Valve (includes terminals and wire leads)

Important

This EGR valve kit is used to convert a Delphi EGR valve equipped LNJ engine used in the Chevrolet Equinox and Pontiac Torrent to a Siemens valve. This kit contains all necessary parts for conversion. The Powertrain Control Module (PCM) calibration must be updated for the Siemens EGR valve to work correctly. Failure to install an updated calibration when using this conversion kit may cause PCM diagnostic codes to set, resulting in a "Service Engine Soon" indicator lamp to illuminate.

EGR Valve Identification

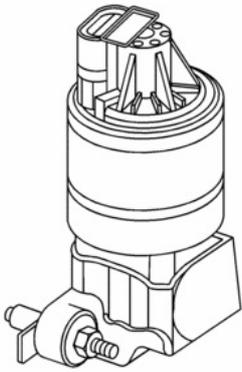
Siemens EGR Valve



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Siemens EGR valves have a horizontal electrical connector.

Delphi EGR Valve



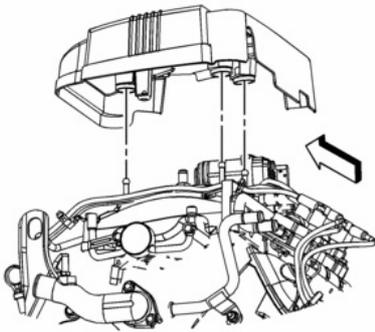
[Click to Enlarge](#)

Delphi EGR valves have a vertical electrical connector.

If a *Siemens* valve is *already* installed, it is *NOT* necessary to install this kit. Individual components are serviced.

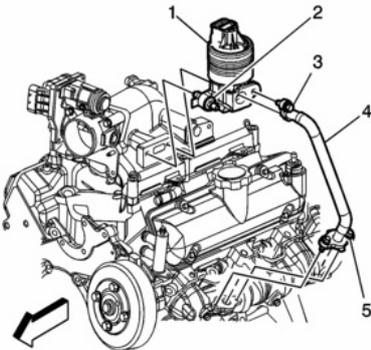
Install the service part kit listed in this bulletin using the following procedure:

1. Disconnect the negative battery cable at the battery.



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2. If equipped, remove the injector sight shield from the studs.



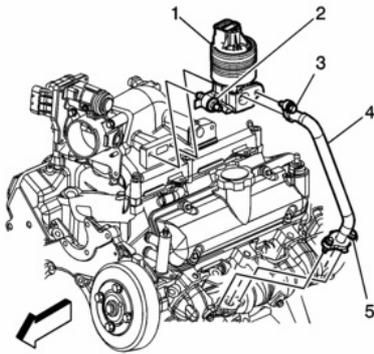
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3. Disconnect the EGR valve electrical connector.
4. Remove the bolt (3) retaining the exhaust gas recirculation (EGR) pipe (4) to the EGR valve (1).
5. Remove the 2 bolts (5) securing the EGR pipe (4) to the exhaust manifold.
6. Remove the EGR pipe to exhaust manifold gasket.
7. Remove the EGR valve bolts (2).
8. Remove the EGR valve (1).
9. Remove the EGR valve gasket.

Important

Remove all the old gasket material from intake manifold with a gasket scraper.

10. Clean and inspect the EGR valve gasket mating surfaces.



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11. Install the new EGR valve, P/N 12581876 (1) with a new EGR gasket, P/N 12593632 to the intake manifold.
12. Install the EGR valve bolts (2).
13. Install the EGR valve bolts (2). Refer to the Fastener Notice in the Service Manual.

Tighten

Tighten the EGR valve bolts (2) to 30 N·m (22 lb ft).

14. Install the new EGR pipe (4), P/N 12602507 to the exhaust manifold.
15. Install the 2 bolts (5) that secure the EGR pipe (4) to the exhaust manifold.

Tighten

Tighten the EGR pipe assembly bolts to 10 N·m (89 lb in).

16. Install the bolt (3) that secures the EGR pipe (4) bolt to the EGR valve (1).

Tighten

Tighten the bolt to 30 N·m (22 lb ft).

Important

In the following steps, care must be taken to prevent cross-wiring of the two gray colored EGR wire leads (located at pin A and pin D). Cross-wiring will result in an MIL to be set. Before cutting the wiring harness leads, mark the gray leads using tape so the location will be remembered on assembly.

17. Take the disconnected EGR valve harness electrical connector and cut the wires directly at the base of the connector. Open the EGR electrical conduit to expose the wire leads.
18. Strip approximately 6 mm (1/4 in) of insulation from all five EGR circuit harness connector wires.

Important

Refer to the correct EGR Valve Wiring Harness Connector End View Schematics in the bulletin for the installation of the new EGR valve wiring harness connector, P/N 15306175.

Important

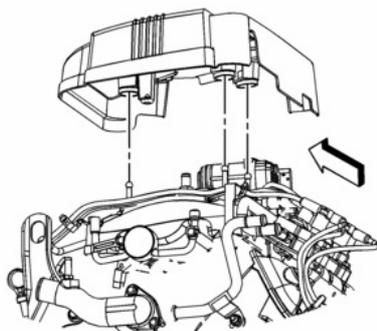
Use splice seal connectors supplied in the wiring harness kit (P/N 15306175) when replacing the EGR valve wiring harness connector.

19. Install the new EGR valve wiring harness connector, P/N 15306175 (includes splice connectors, terminals and wire leads), to the existing engine wiring harness.
20. Use a heat gun to shrink the tubing and set the glue in the connectors.
21. Wrap the new EGR valve wiring harness leads with electrical tape and secure them into the EGR valve electrical harness conduit.

Caution!

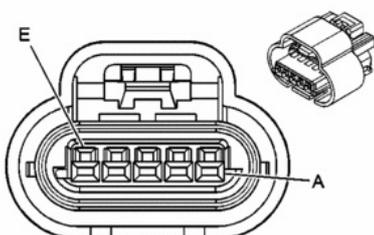
Failure to correctly wire the EGR valve electrical connector will result in a PCM diagnostic code to set and result in a "Service Engine Soon" indicator lamp to illuminate.

22. Connect the engine harness electrical connector to the EGR valve.



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23. If equipped, install the injector sight shield to the studs.
24. Connect the negative battery cable at the battery.
25. Reprogram the PCM with the latest calibrations for the EGR system change over. This calibration, or any that follow, is designed to address this concern. Refer to Service Programming System (SPS) using the appropriate Service Information (SI) procedures. The PCM calibrations are available to dealerships as part of TIS2000 incremental satellite update version 1.0, which was broadcast to dealers January 08, 2006 or later. For the dealerships that use CDs, they were mailed out January 14, 2006 or later. As always, make sure your Tech 2® is updated with the latest software version.



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Caution!

It is important to mark both gray wires before cutting off the EGR valve harness connector. Follow the wiring schematic in this bulletin to ensure a proper repair. Incorrect installation of the EGR valve harness connector will cause EGR valve DTC s to set with incorrect scan tool EGR data parameter readings. If you encounter this condition, check your wiring repair to the EGR valve harness connector. Do not replace the PCM or the EGR valve.

Installation Instruction Sheet

You may have received the *incorrect* installation instruction sheet for the EGR retrofit kit. It is *very important* to check the revision date on the instruction sheet before attempting this repair.

There are three instruction sheets in one. Use the one on the top left corner. The revision date can be found on the lower left corner of your copy. Please discard any copy that *does not* have the following revision date of 03FE06 .

If the revision date cannot be determined, then look at the EGR valve connector end view schematic on your copy of the instruction sheet for the following :

- If the illustration callout shows *A-E* , your instruction sheet is *incorrect* .
- If the illustration callout shows *E-A* , your instruction sheet is *correct* .

EGR Valve Wiring Harness Connector End View Schematic

Connector Part Information		5-Way F Metri-Pack 150 (Black)		
Pin	Wire Color	Circuit Number	Function	
A	Gray	435	EGR Solenoid Low Control	
B	Tan	2753	Low Reference	
C	Brown	1456	EGR Valve Position Signal	
D	Gray	5047	5-Volt Reference	
E	Orange	1676	EGR Solenoid High Control	

Parts Information

Part Number	Description
89018176	EGR Valve Service Parts Kit

Warranty Information

For vehicles repaired under warranty, use:

Labor Operation	Description	Labor Time
J7907*	EGR Valve, Pipe, Gasket and Connector - Replace and Reprogram PCM	0.7 hr
* This labor operation is for bulletin use only. It will not be published in the Labor Time Guide.		

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