



Tech Note

Affected Vehicles:

1995-1998 BMW 540I (E-39)

1995-1998 BMW 740I (E-38)

1995-1998 BMW 840CI (E-31)

Although this bulletin is not directly related to catalytic converter failure, we felt it important to include it in our “tech notes” because it does deal with unmetered air issues, a major contributor to “FALSE” catalytic converter codes.

The issues discussed below can be present even with no lean condition codes, and that is where *false* catalytic converter codes come into play.

Fuel trim data, from your OBDII scan tool will prove helpful here.

In the OBDII generic mode (no VIN information inputted), navigate to Long Term and Short Term Fuel Trim data with the engine running, and at operating temperature.

Now observe the fuel trim data and write it down. Next hold the engine RPM to approximately 2500RPM and record that data.

If you observed a combined (LTFT and STFT) reading of 10% or more, or if the difference between LTFT and STFT for either bank is in excess of 10%, either at idle or while demanding more fuel, STOP! Start looking for unmetered air, fuel starvation, etc... The lean condition is very likely what is causing your catalyst code.

Group 11
Engine
Bulletin Number
11 04 97
Woodcliff, NJ
November 1997
Product Engineering

This Service Information bulletin supersedes orange S.I. 11 04 97 dated June 1997 which should be removed and discarded from your S.I. binder.

SUBJECT:

Intake Air System - Unmetered Air Leaks

MODEL:

E39, E38, E31 with M62 engine

Situation:

Check Engine Lamp is illuminated and fault codes 27 and 35 (oxygen sensor control adaptation) are set in the Engine Control Module (DME).

Cause:

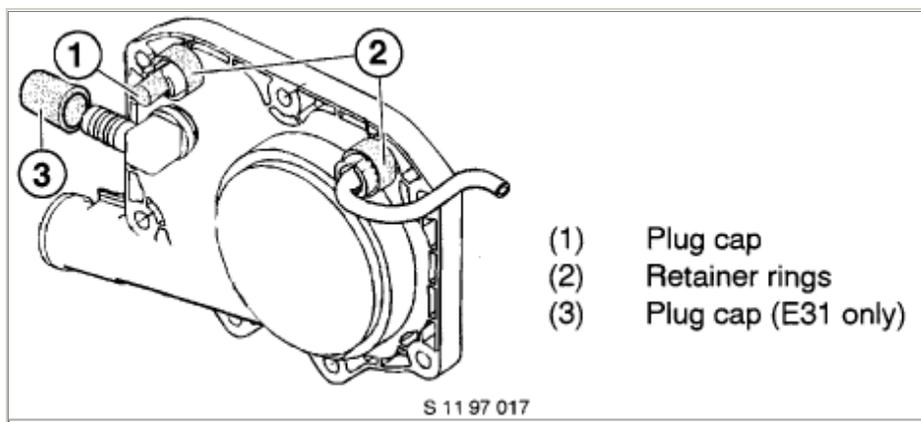
Unmetered air leaks may occur in the following areas causing the above situation:

1. Intake manifold gaskets may be leaking.
2. Plug cap(s) and the vacuum hose for the fuel pressure regulator on the rear intake manifold cover (crankcase ventilation valve) may be torn or missing.

Correction:

In case of a customer complaint, the gaskets between the intake manifold and the cylinder heads should be replaced with new gaskets part number 11 611 433 328.

The new style intake manifold gaskets were phased into production approximately 4/97 on all M62 engines.

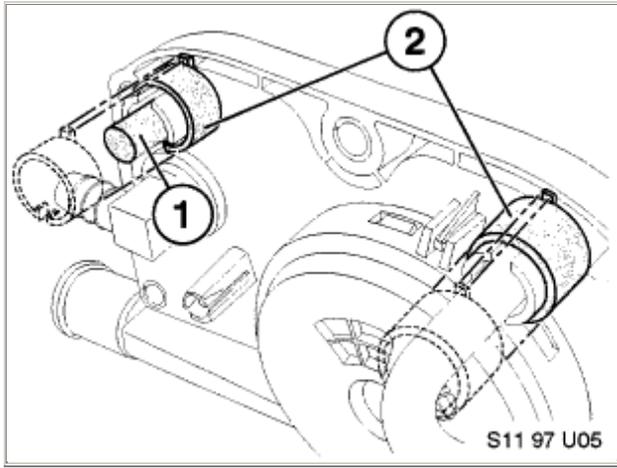


In addition the plug caps (1) and (3)-E31 only) on the rear intake manifold cover should also be replaced and new retainer rings (2) installed as shown in the illustration.

New style plug caps and retainer rings were phased into production approximately 10197 on all M62 engines. If the retainer rings (2) are already present on the rear intake manifold cover, this indicates the new style plug caps are also already installed.

Procedure:

1. Remove the intake manifold as outlined in repair manual group 11 section 11 61 050.



2. With the intake manifold removed replace the plug cap (1) on the vacuum fitting and secure it with a retainer ring (2). See illustration.
3. Also secure the fuel pressure regulator vacuum hose with a retainer ring (2). See illustration. The fuel pressure regulator vacuum hose is located on the upper right side of the rear intake manifold cover as shown.
Note : With the new plug cap (1) and the fuel pressure regulator vacuum hose installed the retainer ring (2) should be installed with the alignment lug/tab facing up and towards the cover.

The retainer ring (2) is properly installed when the alignment tab on the outer circumference of the retainer ring is seated flush against the cover surface as shown in the illustration.

4. Replace the plug cap (3)-E31 only) on the rear intake manifold cover. See illustration.
5. Reinstall the intake manifold using the new style gaskets.

| Part Number | Qty. | Description |
|--------------------|-------------|--------------------------|
| 11 61 1 433 328 | 4 | Intake manifold gasket |
| 11 61 1 437 610 | 1 | Plug cap |
| 11 61 1 437 456 | 2 | Retainer ring |
| 11 61 1 729 727 | 1 | Gasket front cover |
| 13 54 1 747 475 | 1 | O-ring ASC housing |
| 11 15 1 736 140 | 1 | O-ring rear cover |
| 11 61 1 747 085 | 1 | Plug cap (E31 only) |
| 13 53 1 741 191 | 2 | Fuel hose kit (E31 only) |
| 13 53 1 742 211 | 1 | Fuel hose (E38 only) |
| 13 31 1 703 387 | 4 | Hose clamp (E38 only) |

Parts Information:

Warranty Information:

Parts and labor will be reimbursable under the terms of the applicable BMW Emissions and New Car Limited Warranties.

Defect Code: 11 61 90 48 00 Replace all intake manifold gaskets.

Labor Operation: 00 51 323

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| Labor Allowance: | Model | FRU |
| | E38 | 22 |
| | E39 | 23 |
| | E31 | 28 |