

Fuel Delivery and Air Induction: All Technical Service Bulletins Engine - Appears To Misfire/Stumble Intermittently

Group 12
Engine - Electrical

Bulletin Number
12 09 91 (3413)

Woodcliff Lake, NJ
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Product Engineering

This Service Information Bulletin supercedes S.I. 12 09 91 (3413) dated December 1991. It incorporates warranty information. Please remove and discard S.I. 12 09 91 (3413) dated December 1991 from your S.I. binder.

SUBJECT:
Engine Appears to Misfire or Stumble Intermittently

MODELS:
5 Series (E34), 7 Series (E32), 8 Series (E31) - All Equipped with ASC

Situation:
Under certain very specific conditions, a complaint may be encountered of an apparent engine "misfire", or of a "bucking". Please note that this is not an engine misfire. This complaint is encountered only when a specific combination of factors simultaneously occur, such factors include throttle position, road speed, the driver's driving style, and the condition of the road surface. In many cases, only one specific length of roadway may produce this complaint, and even then not consistently.

Cause:
Brief (less than 100 millisecond) fuel injection cut-off, as a result of MSR (engine drag torque control) regulation. This is a normal ASC function that may (under a very narrow set of conditions) occur during a light throttle, minimal load situation.

The ASC and ABS systems are controlled by the same control unit, but act independently of each other. The ABS operation is NOT affected by this ASC-related complaint.

Vehicles Affected	Model	Year
	750iL	All 89 & 90 MY
	735i/iL	91 MY (if equipped with ASC)
	535i/iA	91 MY (if equipped with ASC)
	850iA	All (automatic transmission) produced prior to 7/91

Early 92 MY 535i/iA & 735i/iL vehicles (produced through 10/91) may also be affected. Verify by control unit number, as above.

Note:
On all vehicles affected, verify that the ASC Control Unit is one of the following part numbers:
34 52 1 159 246
34 52 1 159 491
34 52 1 160 025

No other control units are affected.

Correction:
Before attempting any repairs perform the following:

1. Verify that the vehicle is equipped with ASC. Vehicles equipped with ASC+T, and vehicles not equipped with ASC, are not affected.
2. Verify that the following four conditions were in effect when the "miss" or "buck" occurred:
 - A) Vehicle speed between approx. 45 and 60 MPH.
 - B) Rough road surface (for example, pot holes, railroad tracks, etc.)
 - C) Light throttle (accelerator pedal depressed approximately 1/8)
 - D) ASC not switched off

If these conditions were in effect when the complaint occurred, replace the ASC Control Unit. No further diagnosis of the ABS/ASC systems should be performed. The new ASC Control Units respond in a slightly different manner to brief wheel speed input differences, and will not cause this complaint.

Important Note:

All ASC Control Units received by the Warranty Parts

Return Center will be tested.

The later ASC Control Units will address only this specific complaint. Engine stumble resulting from other causes such as fouled spark plugs, defective spark plug wire, etc. will not be affected by the replacement of the ASC Control Unit.

Parts

Information:

The following part numbers are for the new ASC Control Units. Previous part numbers have been superseded to the part numbers listed below:

Model	Part Number (New)	Part Number (Remanufactured)
E32 M70 (MY 89 & 90)	34 52 1 090 154	
E32/E34 M30 (MY 91/92)	34 52 1 090 155	34 52 9 064 437
E31 M70	34 52 1 090 157	34 52 9 064 439

Note:

Only order new part numbers. However, the remanufactured units (listed above) may be received.

Warranty

Information:

Parts and labor are reimbursable under the applicable BMW New Car Limited Warranty.

Defect code:

34 52 03 02 00

Replacing ABS/ASC Control Unit

Labor operation:	34 52 510	34 99 000
Labor allowance:	1 FRU (E32, E34)	2 FRU (E31, E32, E34) 2 FRU (E31)

Note:

Labor operation 34 52 510 is an Associated Labor time in conjunction with labor operation 34 50 000 (checking function of ABS). Because it is not necessary in this case to perform labor operation 34 50 000, an additional 2 FRUs may be claimed under labor operation 34 99 000.