



SUBJECT

Active Front Steering Noise, Fault Code 613E

MODEL

E60 (5 Series) and E63/E64 (6 Series) equipped with Option Code SA217 Active Front Steering (AFS) and produced up to 6/05.

SITUATION

A clicking or ratcheting noise can be heard from the engine compartment when unlocking the vehicle or switching the ignition on. The AFS control module stores fault code 613E "Mechanical Lock Malfunction". The AFS warning light may illuminate in the instrument cluster after the engine is started.

CAUSE

Erroneous AFS self check test parameters. The software has been optimized in 6/05.

CORRECTION

In case of a customer complaint, perform the following correction:

- A. **Vehicles produced before 9/03:** Replace AFS control module and the steering gear. Program control modules and code the vehicle with CIP 19.1 or later.
- B. **Vehicles produced from 9/03:** Program control modules and code the vehicle with CIP 19.1 or later.

PROCEDURE

A. Vehicles produced before 9/03:

1. Replace the AFS Control Module, see Repair Instructions RA 32 43 010.
2. Replace the steering gear, see Repair Instructions RA 32 13 060.
3. Program and code the vehicle using CIP V19.1 or a more recent version. Refer to [B09 05 01](#) (Coding, Individualization and Programming), Procedure A.

B. Vehicles produced from 9/03:

Program and code the vehicle using CIP V19.1 or a more recent version. Refer to B09 05 01 (Coding, Individualization and Programming), Procedure B.

PARTS INFORMATION

The following parts are required for vehicles produced before 9/03. Vehicles produced from 9/03 do not require any parts.

Part Number	Description	Quantity
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32 43 6 772 742	AFS control module	1
32 10 6 770 160	AFS steering gear	1
32 13 6 769 390	Bolt	4
33 32 1 092 382	Self locking nut	3
32 41 1 093 596	Seal ring 14 x 20	2
32 41 1 093 597	Seal ring 16 x 22	2
52 10 7 027 020	Fillister head screw	4
82 11 1 468 041	Pentosin Fluid CHF 11S	2

Always refer to Electronics Parts Catalog (EPC) for the latest parts information.

WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle Limited Warranty.

A. Vehicles produced before 9/03:

Defect Code	32 13 90 02 00	
Labor Operation:	00 55 233	Main Work: Read/clear fault code memory, replace AFS control unit and steering gear, check wheel alignment, program and code vehicle.
Labor Allowance:	80 FRU	For all E60 models.
Labor Operation:	00 55 234	Main Work: Read/clear fault code memory, replace AFS control unit and steering gear, check wheel alignment, program and code vehicle (including CAS).
Labor Allowance:	81 FRU	Only for E60 525i and 530i.
Labor Allowance:	82 FRU	Only for E60 545i.
Labor Operation:	+00 55 840	Associated Work: Read/clear fault code memory, replace AFS control unit and steering gear, check wheel

alignment, program and code vehicle.

Labor Allowance: 79 FRU For all E60 models.

Labor Operation: +00 55 841 Associated Work: Read/clear fault code memory, replace
AFS control unit and steering gear, check wheel alignment, program and code vehicle (including CAS).

Labor Allowance: 80 FRU Only for E60 525i and 530i.

Labor Allowance: 81 FRU Only for E60 545i.

B. Vehicles produced from 9/03:

**Defect Code 32 13 90 02
00**

Labor Operation: 00 55 235 Main Work: Read/clear fault code memory, program and
code vehicle.

Labor Allowance: 13 FRU For all E60, E63 and E64 models.

Labor Operation: 00 55 236 Main Work: Read/clear fault code memory, program and
code vehicle (including CAS).

Labor Allowance: 14 FRU For all E60, E63 and E64 models.

Labor Operation: +00 55 842 Associated Work: Read/clear fault code memory,
program and code vehicle.

Labor Allowance: 12 FRU Only for E60 models.

Labor Allowance: 11 FRU Only for E63 and E64 models.

Labor Operation: +00 55 843 Associated Work: Read/clear fault code memory,

program and code vehicle (including CAS).

Labor Allowance: 13 FRU Only for E60 models.

Labor Allowance: 12 FRU Only for E63 and E64 models.

Note: The following explanations will spell out the correct use of the work times.

Main Work: Use this labor operation number when the only repair performed is the listed warranty repair.

OR

+Associated Work: Use this labor operation number when other repairs or services are performed along with the listed warranty repair. Under no circumstances should both labor operation numbers be claimed. Attempts to claim both times will result in an unnecessary delay in claim processing and payment.