

**SUBJECT****M57Y Diesel Fuel Injector: Zero Mass Adaption Faults****MODEL**

E90 (3 Series Sedan 335d)

With M57Y engine

**SITUATION**

The Service Engine Soon light is on.

Possible Fault Codes stored:

- 4AD5 – Zero-mass adaption injector Cylinder 1
- 4AD6 – Zero-mass adaption injector Cylinder 1
- 4AE5 - Zero-mass adaption injector Cylinder 2
- 4AE6 - Zero-mass adaption injector Cylinder 2
- 4AF5 - Zero-mass adaption injector Cylinder 3
- 4AF6 - Zero-mass adaption injector Cylinder 3
- 4B05 - Zero-mass adaption injector Cylinder 4
- 4B06 - Zero-mass adaption injector Cylinder 4
- 4B15 - Zero-mass adaption injector Cylinder 5
- 4B16 - Zero-mass adaption injector Cylinder 5
- 4B25 - Zero-mass adaption injector Cylinder 6
- 4B26 - Zero-mass adaption injector Cylinder 6

These faults are stored after an intake carbon cleaning ([B11 03 14](#)) or an extensive engine repair.

When following the recommended test plan, ISTA **incorrectly** instructs the technician to replace all six fuel injectors.

However, the same fuel injector zero-mass faults can return shortly after replacing the fuel injectors.

**CAUSE**

The DDE fuel injector zero-mass adaption is not being calibrated correctly.

**PROCEDURE**

**Do not replace any fuel injectors.**

The test plan will be corrected with ISTA 3.46.

Submit a PuMA Case titled “M57Y Zero-mass Adaptation.”

1. Set the vehicle up for an IRAP session.

2. The IRAP team will flash the DDE with a temporary dataset and reset the zero-mass (NMK) values.
3. **When instructed by the IRAP team:** Turn KL-15 off / engine is started briefly / engine is turned off / switch to KL-0 and let the vehicle go to sleep

The vehicle must then be programmed with the latest version of ISTA/P to install the latest working DDE software.

**The DDE may need to be manually added to the measures plan.**

4. Start the engine and let it warm up (max. ten minutes). Drive the car safely and manually select gear 3 or 4. Accelerate from 1500 to 2500 rpm – release the throttle and let the vehicle coast down to idle speed. Repeat this 10 times.
5. Reconnect to ISTA to send FASTA and clear the fault memory.

#### WARRANTY INFORMATION

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

<b>Defect Code:</b>	<b>13 53 22 96 00</b>	
<b>Labor Operation:</b>	<b>Labor Allowance:</b>	<b>Description:</b>
00 00 556	Refer to KSD2	Performing “vehicle test” (with vehicle diagnosis system – checking faults)
And:		
61 21 528	Refer to KSD2	Connect an approved battery charger/power supply(indicated in KSD2 as “Charging battery”)
And:		
61 00 730	Refer to KSD2	Programming / encoding control unit (s)
And:		
13 00 003	3 FRU	Checking function of the Digital Diesel Electronics (Work time to perform Procedure step #5)
And:		
61 00 980	Refer to KSD2	Continue vehicle test and performing Quick delete (Procedure step #6)
And:		
13 99 000	3 FRU	End vehicle test and test drive to check the status of the SES light (Work time to perform Procedure step #7)

Refer to KSD2 for the corresponding flat rate unit (FRU) allowance. Enter the Chassis Number, which consists of the last 7 digits of the Vehicle Identification Number (VIN). Click on the “Search” button, and then enter the applicable flat rate labor operation in the FR code field.

Even though work time labor operation code 13 00 003 ends in “003” and 13 99 000 ends in “000,” they are not considered a Main labor operation. Also, since the “work time” FRU allowances to be claimed are specified, a separate punch time is not required.

If a vehicle control module or component was working properly and/or had no related faults stored prior to vehicle programming and it fails to program correctly and/or requires initialization, this additional work must be claimed with separate labor operations under the defect code listed above, refer to KSD2.

Repairs to address control modules and/or components with pre-existing conditions are not eligible to be claimed under the defect code listed in this bulletin.

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