

2021-02-19

### DME FC 21A02D - COMBUSTION CONTROL: VALVE LIFT AT IDLE

This Service Information Bulletin (Revision 4) replaces SI B12 13 18 dated March 2020.

What's New (Specific text highlighted):

- F34 (3 Series Gran Turismo) added to models
- · Specific engine variants updated
- Integration level changed in the procedure section

## **MODEL**

F22 (2 Series Coupe)	F23 (2 Series Convertible)	F30 (3 Series Sedan)	F31 (3 Series Sports Wagon)
F32 (4 Series Coupe)	F33 (4 Series Convertible)	F34 (3 Series Gran Turismo)	F36 (4 Series Gran Coupe)
G01 (X3 Sports Activity Vehicle)	G12 (7 Series Sedan)	G30 (5 Series Sedan)	G32 (6 Series Gran Turismo)

All with B46O, B48M, B58M and XB1H engines

## **SITUATION**

The vehicle will run rough or hesitate when accelerating from a stationary position, and the following fault code is stored in DME fault memory.

• FC 21A02D - Combustion control: valve lift correction when at idle

## **CAUSE**

A software error in the Digital Motor Electronics (DME).

#### CORRECTION

Update the vehicle software using ISTA 4.27.10 or higher.

#### **PROCEDURE**

1. If other faults are stored in the vehicle then perform the applicable test plans for those faults first and repair the vehicle as recommended.

Do not replace any parts to specifically address DME FC 21A02D – Combustion control: valve lift correction when at idle.

- 2. If no other faults are stored in the vehicle or the other faults have already be been rectified, then go to step 3.
- 3. Program the vehicle using ISTA 4.27.10 (released early Dec. 2020) or higher to integration level 20-11-500 or higher.
- 4. When the vehicle programming is complete the "Reset Valvetronic list adaption" and "Learning Valvetronic limit positions" test plans must be performed using the following paths in ISTA/D:

Both of the test plans listed below must be completed after vehicle programming, or the fault will return.

If the fault returns, repeat these two test plans before contacting the TSARA hotline.

If you are contacting the TSARA hotline for additional assistance, please specify what date the test plans were already performed on the prior visit.

Do not replace any parts before contacting the TSARA hotline.

# <u>Perform the Reset Valvetronic Lift Adaptation Test Plan</u>

Select "Vehicle management"

Select "Service functions"

Select "Powertrain"

Select "Engine electronics"

Select "Reset Adaptations" Run ABL

Select "Reset Valvetronic lift adaptation" and follow the prompts on the screen to clear the Valvetronic adaptions.

#### Perform the Valvetronic Lift Adaptation Test Plan

Select "Vehicle management"

Select "Service functions"

Select "Powertrain"

Select "Engine electronics"

Select "Adjustment programs"

Select "Valvetronic lift adaptation" and follow the prompts on the screen to calibrate the Valvetronic system.

#### WARRANTY INFORMATION

During this workshop visit, the affected vehicle may also show one or more programming and encoding Technical Campaign repairs open. The programming and encoding procedure may only be invoiced one time.

Update the vehicle to the required I-level or higher by performing and submitting for one of the open Technical Campaigns instead.

Please be sure to also perform any additional work (before and/or after) the campaign repairs require and/or close the remaining open programming and encoding Technical Campaign repairs as outlined in the corresponding Service Information Bulletin.

Then, either in conjunction with performing these open Technical Campaign repairs or as a standalone repair (vehicles without an open programming and encoding Technical Campaigns), perform and claim the Reset Valvetronic list adaption and Learning Valvetronic limit positions test plans.

Covered under the terms of the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks, including Emissions when determined applicable, for the repair below that applies.

Defect Code: 1042315900
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#### In conjunction with performing a Programming and Encoding Technical Campaign repair

Labor Operation	Description	Labor Allowance
11 99 000	Work time for performing Reset Valvetronic lift adaptations and Valvetronic lift adaptation test plans	6 FRU

Or, as a:

# Standalone repair (vehicles without an open Programming and Encoding Technical Campaign Repair)

Labor Operation	Description	Labor Allowance
00 00 006	Performing vehicle test (with vehicle diagnosis system – checking faults) (Main work)	Refer to AIR
Or:		
00 00 556	Performing vehicle test (with vehicle diagnosis system – checking faults) (Plus work)	Refer to AIR
And:	-	
61 21 528	Connect an approved battery charger/power supply (indicated in AIR as Charging battery)	Refer to AIR
And:		
61 00 730	Programming/encoding control unit(s)	Refer to AIR
And:		
11 99 000	Work time for performing Reset Valvetronic lift adaptations and Valvetronic lift adaptation test plans	6 FRU

And, additionally for the:

#### e-Vehicles

Labor Operation	Description	Labor Allowance
61 25 910	Recharging high-voltage battery unit (to high voltage charging socket)	Refer to AIR

If you are using a Main labor code for another repair, use the Plus code labor operation 00 00 556 instead of 00 00 006.

Refer to AIR for the corresponding flat rate unit (FRU) allowances.

Work time labor operation code 11 99 000 is not considered a Main labor operation.

As applicable to your center, please refer to **SI B01 01 20 or B01 07 20** for claiming your diagnosis work time, job/repair work time (WT), RO/Claim WT and/or repair explanation procedures, unless otherwise required by State law.

#### Programming and Encoding - Vehicle Control Units (RO and Claim Comments Required)

The programming procedure automatically reprograms and encodes all vehicle control modules which do not have the latest software I-level. If one or more control module failures occur during this programming procedure:

 Please claim this consequential control module-related repair work (including performing the IRAP Control Unit Recovery procedure first as required, refer to the SIB in AIR) under the defect code listed in this bulletin with the applicable AIR labor operations.

Please explain this additional work (The why and what) on the repair order and in the claim comments section

For control module failures that occurred prior to performing this programming procedure:

 When covered under an applicable limited warranty, claim the applicable test plan and the corresponding control module-related repair work using the applicable defect code and labor operations in AIR (including diagnosis).

# **QUESTIONS REGARDING THIS BULLETIN**

Technical inquiries	Submit feedback at the top of this bulletin
Warranty inquiries	Please contact the Warranty department by either using the Live Chat that's available in the Warranty Documentation Portal or through IDS by selecting Coverage, Policy, Coding Questions and Mileage Corrections
Parts inquiries	Submit an IDS ticket to the Parts Department