BMW

SI B12 34 14
Engine Electrical Systems

December 2014
Technical Service

SUBJECT

N52T DME Fault CD9304: Diagnostic Hints for Bit-Serial Data Interface Communication

MODEL

F10 (5 Series Sedan)

F25 (X3)

With the N52T engine

SITUATION

If there is a problem with communication on the Bit-serial data interface bus (BSD), the obvious symptoms are related to the oil service CBS functions.

The DME must receive constant communication from the oil level sensor. Whenever this communication is disturbed, a fault is set and the following symptoms can be present:

- The remaining distance forecast to the next oil service is too short and not plausible in conjunction with the service history.

- The CBS engine oil service cannot be reset either in the Kombi or with the ISTA test plan.

- The engine oil level measurement is inactive and will not complete.

The fault CD9304: Bit-serial data interface, signal: communication is stored in the DME.

In addition, power management faults for undervoltage or overvoltage, as described in SI B12 12 13, could be stored as well.

CAUSE

A faulty ignition coil may have damaged the DME; however, there is no DME fault code stored for the defective ignition coil.

CORRECTION

Depending on the combination of faults stored, follow one of the procedures listed below.

1. DME fault CD9304 – Bit-serial data interface, signal: communication fault is stored along with one or both of the following power management faults.

   213301 – Power management, overvoltage: Overvoltage detected and/or

   213401 – Power management, undervoltage: Undervoltage detected

   Perform diagnostics with the most current version of ISTA, following all the recommended test plans and repairs as described in SI B12 12 13.

2. **Only** DME fault CD9304 – Bit-serial data interface, signal: communication fault is stored.

   Perform diagnostics with the most current version of ISTA to check the BSD bus in the test module **AT1214_BSD – BSD Communication.**

   Check the other BSD bus participants in the test module:

- Alternator

- Electric coolant pump

- Oil condition sensor

The IMIB can be a useful tool to confirm BSD bus communication while checking each of the components, connections, and wiring.

If troubleshooting does not indicate a problem with the BSD components or in the circuitry, the DME will need to be replaced along with all of the ignition coils.

Refer to ETK for the correct ignition coil part numbers and to SI B00 03 06 for TC authorization for the DME replacement.

WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle/SAV Limited Warranty or the BMW Certified Pre-Owned Limited Warranty.

Defect Code:	12 13 00 12 00	
Labor Operation:	Labor Allowance:	Description:
00 00 006	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 KSD 2 as Charging battery)		
And, as necessary:		
12 00 009	Work time (WT)	Troubleshooting

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

Even though work time labor operation code 12 00 009 ends in "009," it is not considered a Main labor operation.

Work time (WT) labor operation 12 00 009 requires an individual punch time and an explanation in the claim comments.

And:

Labor Operation:	Labor Allowance:	Description:
12 14 550	Refer to KSD2	Replacing the control unit (DME)
And:		
61 00 730	Refer to KSD2	Programming/encoding control units
And:		

12 13 512	Refer to KDS2	Replacing more than one ignition coil

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.

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

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

Other Repairs

If performing the additional ISTA diagnostics and related test plans results in other eligible and covered work, claim this work with the applicable defect code and labor operations listed in KSD2.