# February 2014 Technical Service

## **SUBJECT**

# **Reduced Engine and Air-Conditioning Performance**

#### **MODEL**

F30 (3 Series Sedan)

F32 (4 Series Coupe)

With the N20, N26, N55 engines and **M Sport Package option 0337** produced from 7/2012 to 12/2013

## **SITUATION**

When driving with high outside ambient temperatures, repeated stop and go, or high load operation over longer distances, the engine performance can be reduced.

The air-conditioning system blower output may also be reduced, and in some circumstances the compressor is switched off.

There could be any of the following faults stored depending on the conditions present at the time.

## **DME**

• Fault 1A2108: Electric fan, self-diagnosis, interval stage 1: Minor fan fault

EGS (also possibly set)

• Fault 421722: DME/DDE interface: Forced upshift due to thermal engine protection request

IHKA (possibly set without DME or EGS faults)

- Fault 801224: Air conditioning compressor: Shut-down due to excess pressure in refrigerant circuit
- Fault 801228: Blower output stage: Blower output reduction due to power management

The Service Engine Soon lamp (MIL) would not be illuminated in these situations.

#### **CAUSE**

- 1. A DME software error in the control of the 850W electric fan over-boost or high speed function.
- 2. The electric cooling fan design was not robust enough for continuous over-boost or high speed operation.

## CORRECTION

- 1. All other engine related faults must be diagnosed using ISTA/D and resolved prior to proceeding.
- 2. Replace the fan housing with 850W electric fan.
  - o The improved parts were introduced into production at the end of November 2013 and can by identified by the index number of '04' or higher as shown in the attachment.
- 3. Program the vehicle using the latest version of ISTA/P.

Target integration (new) – F020-13-11-501 or higher.

For information on programming and coding with ISTA/P, refer to CenterNet / Aftersales Portal / Service / Workshop Technology / Vehicle Programming.

Always connect a BMW approved battery charger / power supply (SI B04 23 10).

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## **PARTS INFORMATION**

| Part Number     | Description                        | Quantity |
|-----------------|------------------------------------|----------|
| 17 42 7 640 513 | Fan housing with 850W electric fan | 1        |

#### WARRANTY INFORMATION

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

| <b>Defect Code:</b> | 17 11 11 99 00   |   |
|---------------------|------------------|---|
|                     |                  |   |
| Labor Operation:    | Labor Allowance: | <b>Description:</b>   |
| 00 00 006           | Refer to KSD2    | Performing "vehicle test" (with vehicle diagnosis system – checking faults)                                   |
|                     |                  |   |
| 61 21 528           | Refer to KSD2    | Connect an approved battery charger / power supply (indicated in KSD 2 as Charging battery)                   |
|                     |                  |   |
| 61 00 006           | Work Time (WT)   | Performing vehicle diagnosis – test module (as required)  |
|                     |                  |   |
| 17 11 535           | Refer to KSD2    | Removing and installing or replacing fan shroud with electric fan   |
|                     |                  |   |
| 61 00 730           | Refer to KSD2    | Programming/encoding control unit(s) (Only necessary when the vehicle is below the "Target" integration level |

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.

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.

Work time (WT) labor operation 61 00 006 requires an individual punch time.

If correctly functioning control module(s) fail to reprogram or initializations are required, the additional work must be claimed using separate labor operations found in KSD2 under the defect code listed above.

# **ATTACHMENTS**

View PDF attachment B122513 F3x 850W Fan.

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