MODEL

G30 (540d xDrive Sedan)			

Equipped with the B57O diesel engine and produced to 3/30/18.

SITUATION

The Malfunction Indicator Lamp (MIL) is illuminated and the engine may run roughly while idling and accelerating.

One or both of the following fault codes are stored in the Digital Diesel Electronics (DDE):

- **275800** - Crankshaft sensor signal failure
- **273B00** - Camshaft sensor signal failure

The following faults may be also be stored in the Digital Diesel Electronics (DDE):

- **24BB00** Zero quantity calibration fault cylinder 1 zero-quantity adaptation injector cylinder 1: Permitted filtered actuation duration correction too high
- **24BF00** Zero quantity calibration fault cylinder 2 zero-quantity adaptation injector cylinder 2: Permitted filtered actuation duration correction too high
- **24BD00** Zero quantity calibration fault cylinder 3 zero-quantity adaptation injector cylinder 3: Permitted filtered actuation duration correction too high
- **24C000** Zero quantity calibration fault cylinder 4 zero-quantity adaptation injector cylinder 4: Permitted filtered actuation duration correction too high
- **24BC00** Zero quantity calibration fault cylinder 5 zero-quantity adaptation injector cylinder 5: Permitted filtered actuation duration correction too high
- **24BE00** Zero quantity calibration fault cylinder 6 zero-quantity adaptation injector cylinder 6: Permitted filtered actuation duration correction too high

CAUSE

Sporadic camshaft or crankshaft sensor failures may cause errors in the zero-quantity adaption.

CORRECTION

Diagnose the camshaft and crankshaft faults using ISTA 4. If zero-quantity adaptation faults are stored in conjunction with camshaft and crankshaft faults, do not replace the fuel injectors.

Program the vehicle with **ISTA 4.10.2x** or higher.

Reset and teach-in the fuel injector zero-quantity adaption.

PROCEDURE

For conditions that are similar to the situation described:

1. Perform diagnosis of the camshaft and crankshaft faults with the latest version of ISTA.

If only the camshaft and/ or the crankshaft faults are stored, follow the test plan recommendations.
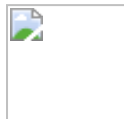
 Note: If the camshaft and/ or the crankshaft faults are stored in conjunction with one of the listed

zero-quantity adaption faults:

- **Do not replace the fuel injectors as the test module may request.**
- **Perform the diagnosis test plans for the camshaft and/or crankshaft faults.**

2. Program the vehicle using ISTA 4.10.2x to the appropriate level shown below:

Model	Target I-level
G30 (5 Series Sedan)	**S15A-18-03-520** or higher

3. Reset the correction values of the fuel injectors.

 Note: Select the following:

- Vehicle management
- Service functions
- Powertrain
- Digital Diesel Electronics
- **Reset correction values of injectors** (ABL-DIT-AS1365_BX7_KORINJ)

Note that ISTA Next will automatically reprogram and code all programmable control modules that do not have the latest software.

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

For information on programming and coding with ISTA, refer to CenterNet / TIS / Technical Documentation / Programming and Diagnostics / Programming Documentation.

WARRANTY INFORMATION

Covered under the terms of the BMW New Vehicle Limited Warranty for Passenger Cars and Light Trucks or the BMW Certified Pre-Owned Program.

Defect Code:	1214101400	Crankshaft Pulse Generator
	Or:	
	1214111400	**Camshaft Pulse Generator**
Labor Operation:	**Labor Allowance:**	**Description:**
00 00 006	Refer to KSD2	Performing "vehicle test" (with vehicle diagnosis system – checking faults) (Main work)
Or:		
00 00 556	Refer to KSD2	Performing "vehicle test" (with vehicle diagnosis system – checking faults) (Plus work)

And:		
61 21 528	Refer to KSD2	Connect an approved battery charger/power supply (indicated in KSD2 as "Charging battery")
And, as necessary:		
61 00 006	Work time (WT)	Performing vehicle diagnosis – test module
And:		
61 00 730	Refer to KSD2	Programming/encoding control unit(s)
And:		
13 00 003	1 FRU	Perform ABL "Reset correction values of injectors"

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 KSD2/AIR for the corresponding flat rate unit (FRU) allowances.

Work time labor operation codes 61 00 006 and 13 00 003 are not considered a Main labor operations, additionally:

- Labor operation code 61 00 006 requires an individual punch time; since
- The "work time" FRU allowance to be claimed is specified for labor operation code 13 00 003, a separate punch time is not required.

However, both of these work time labor operations still require an explanation on the repair order and in the claim comments section.

During the same workshop visit, if a vehicle also requires another Technical Campaign or repair that also includes programming and encoding the control units, the programming procedure may only be invoiced one time.

Vehicle Programming and Encoding

A. 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 under the defect code listed in this bulletin with the applicable KSD2/AIR labor operations.

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

B. For control module failures that occurred "prior" to performing this programming procedure; and/or
C. Other work/repairs that results from performing ISTA diagnostics and the related test plans:

• When "covered" under an applicable limited warranty, claim this control module-related repair work using the applicable defect code and labor operations (including diagnosis) in KSD2/AIR.