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This Service Information bulletin supersedes SI B12 18 14 **dated March 2015**.

**NEW** designates changes to this revision

#### SUBJECT

### Engine Misfire Due to Failed Ignition Coil

#### MODEL

All

With the N51, **NEW** N52\*, N52K, and N52T engines

**NEW** \*Only N52 produced from 4/2006

#### SITUATION

- The Check Engine or Service Engine Soon (MIL) lamp is on with misfire fault(s) stored in the DME.
- Intermittent performance or rough running without a relevant DME fault stored

The most likely cause is that an ignition coil has failed, which can be confirmed in many cases with basic diagnosis.

#### CAUSE

During operation with high temperature fluctuations, the different materials used in the Bosch ignition coil construction can deteriorate over time, leading to a failure.

#### CORRECTION

#### IMPORTANT NOTE:

The current ISTA misfire test plan for these engines can be lengthy to complete, and does not provide an effective method to diagnose a faulty secondary ignition component.

If basic diagnosis determines the cause to be a faulty coil, follow the inspection/replacement procedure listed below.

Make certain to test drive the vehicle after the repair is completed to verify the effectiveness of the repair.

Only if misfire faults or rough running are still present, continue with further diagnosis as recommended in the misfire test plan.

Since the remaining ignition coils have been subjected to the same operating conditions, it will be necessary to follow the appropriate procedure listed below (specific to the engine variant), to ensure

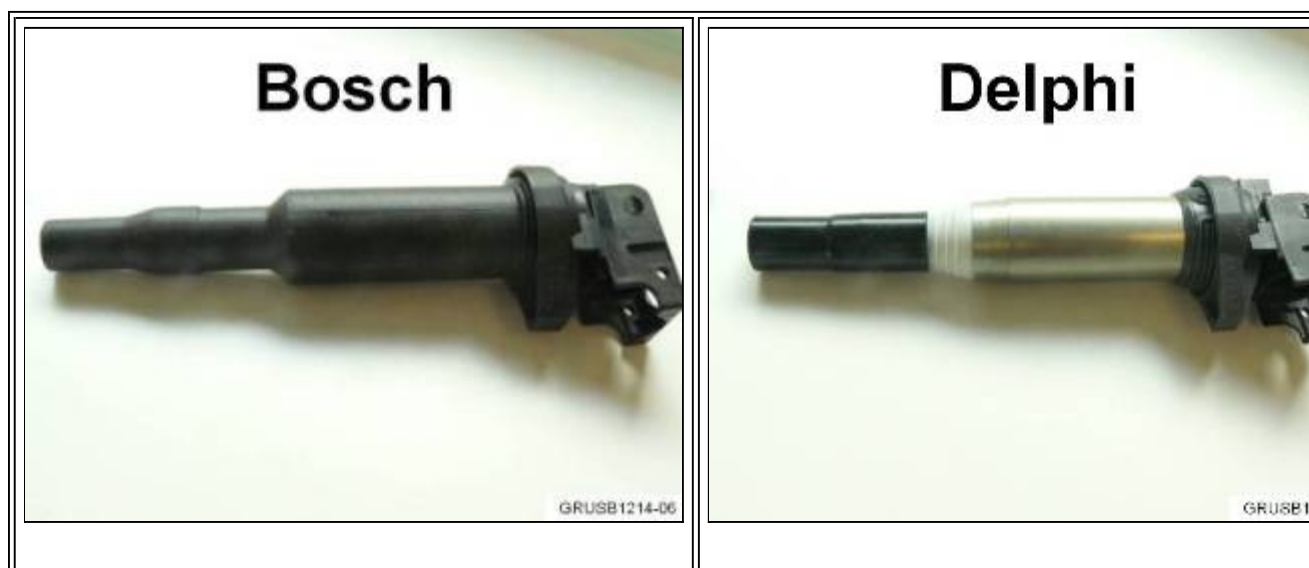
the best customer-oriented repair.

1. **NEW** For vehicles with the **N51, N52 (from 4/2006), and N52K** engines which have been in service for over 24 months or 10,000 miles: during the first service visit due to an ignition coil failure, replace **all Bosch** ignition coils with **Delphi** coils as indicated in ETK (March 2015).

If any ignition coil(s) was replaced previously with a **Delphi** part, it does **NOT** need to be replaced.

2. For the F10 and F25 with the **N52T** engine, replace **all Bosch** ignition coils with the replacement **Delphi** coils under these situations:
  - At the first service visit with for an ignition coil failure
  - Alternator failure (see [SI B12 12 13](#))
  - DME replacement due to a failed Bit Serial Data (BSD) interface circuit

### Ignition Coil Identification



### PARTS INFORMATION

Part Number	Description	Quantity
12 13 8 616 153	Delphi coil	Up to 6

### WARRANTY INFORMATION

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

**Vehicles equipped with the N51 engine only (PZEV/SULEV):** This repair is also covered by the terms of the state-specific emissions warranty (dependent on the vehicle model, model year and state of registration).

<b>Defect Code:</b>	<b>12 13 00 12 00</b>	
<b>Labor Operation:</b>	<b>Labor Allowance:</b>	<b>Description:</b>
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

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:

### Replacing Coil(s) Only

<b>Labor Operation:</b>	<b>Labor Allowance:</b>	<b>Description:</b>
12 13 511	Refer to KSD2	Replacing one ignition coil
Or:		
12 13 512	Refer to KSD2	Replacing more than one ignition coil

Or:

### Replacing Coil(s) with Checking and/or Replacing Spark Plug(s) when Necessary

<b>Labor Operation:</b>	<b>Labor Allowance:</b>	<b>Description:</b>
12 12 521	Refer to KSD2	Removing and installing/renewing all spark plugs

**NEW** Refer to KSD2 for the corresponding flat rate unit (FRU) allowance.

## 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.

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