



Technical Bulletin

Model(s)	Year	Eng. Code	Trans. Code	VIN Range From	VIN Range To
Passat, Passat Wagon	2004-2005	1.8L (AWM)	All	All	All
Golf, Jetta (A4)	2004-2006	1.8L (AWM)	All	All	All
New Beetle, New Beetle Convertible	2004-2005	1.8L (AWM,AWP,BNU,BKF)	All	All	All
Eos, GTI, Jetta, Passat	2006-2009	2.0L (BPY)	All	All	All
Jetta, GTI, Eos, Tiguan, Beetle, Beetle Convertible, CC, Passat	2009-2013	2.0L (CCTA/CBFA)	All	All	All

Condition

01 13 10 March 15, 2013 **2025089** Supersedes T.B. V010751 dated June 1, 2007 for revised diagnostic assistance and additional model applicability.

Engine, Misfire Diagnostic Aid

The MIL is flashing or illuminated.

One or more of the following DTCs are stored:

DTC	Description
DTC P0300	Random/Multiple Cylinder Misfire Detected
DTC P0301 – P0304	Cyl.1 Misfire Detected - Cyl.4 Misfire Detected

Engine may also exhibit reduced performance without significant loss of power.



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Technical Background

Replaced ignition coils have commonly been related to conditions such as:

- Incorrect installation of ignition coils
- Loose or damaged electrical connections
- Circuit grounds
- Poor fuel quality
- Reasons that may not be related to ignition coil operation.

A Proper GFF misfire diagnosis **must** be followed before replacing any ignition coils.

Production Solution

Not applicable

Service

Ensure all campaigns and applicable TSBs have been performed

- Due to multiple causes for engine misfire, please ensure all campaigns and applicable TSBs have been performed.
- Repeat repairs must be carefully addressed to identify the root cause of the concern. Please utilize proper diagnosis steps to ensure that the vehicle is repaired properly and that the concern has been identified, repaired and verified.
- Obtain information from the customer
- To repair the vehicle correctly, obtain as much information as possible from the customer about the symptoms of the condition and when it occurred.
- In what situation (turning, etc.) does the condition occur?
- Under what environmental conditions (road conditions, weather, temperature, start conditions, etc. does the condition occur?
- What is the operating situation of the vehicle (activated electrical equipment, gear selection, etc. when the condition occurs?
- Can the complaint be reproduced?

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Workshop procedure

1. Read out the data memory of engine control module, and note the environmental conditions on the DTC log.
 - a. If there are other entries in addition to combustion misfires, address the other entries before addressing the cylinder misfires.
 - b. If DTC P0301 – P0304 (Cyl.1 Misfire Detected - Cyl.4 Misfire Detected) is accompanied by P1250 (Fuel level too low), it is likely the faults occurred due to a low fuel level and not a malfunction from the coils.
 - c. Review all applicable TSBs related to cylinder misfires and ECM software improvements before diagnosing the misfire condition. For example, if data shows that a DTC was set during cold start, search ElsaWeb for TSBs related to cold start misfires.
2. Try to duplicate customer complaint based on the environmental conditions at the time the DTC was set. The freeze-frame data gives important indicators for the traceability of the complaint, in particular if it occurs sporadically or at cold start.
3. Review the vehicle repair history for previous misfire or maintenance service that could be related to the current complaint.
4. Observe the requirements of Guided Fault Finding. Perform Guided Fault Finding in full, according to the proposed sequence (test plan). **DO NOT** skip any steps.
5. Complete Guided Fault Finding correctly and set the readiness code.



This is important to ensure that no subsequent faults occur due to the misfire.

6. In the case of single cylinder misfires:
 - a. **Before replacing components**, determine whether the misfire migrates to the other cylinders after exchanging the coils. If necessary, perform a test drive to ascertain this.
 - b. If the misfire migrates to the cylinder the coil was moved to:
 - Read the DTC memory, print and attach both diagnostic logs (before and after) to the repair order.
 - Return both coils to their original cylinders, and only replace the defective coil.
7. Verify repair under the same environmental conditions (e.g.: engine speed, engine load value, vehicle speed, coolant temperature, intake air temperature, ambient air pressure, voltage at terminal 30, etc.) as noted on the DTC log.

Warranty

Information only.



For payment processing, both Guided Fault Finding logs **must be documented** identifying that the issue changed cylinders during the test. All claims are subject for review.



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Required Parts and Tools

No Special Parts required.

Tool Description	Tool No:
Ignition Coil Puller	T40039

Additional Information

All part and service references provided in this Technical Bulletin are subject to change and/or removal. Always check with your Parts Dept. and Repair Manuals for the latest information.