

# Technical Service Bulletin



## 01 MIL on (P0300 and/or P0301, P0302, P0303, P0304 - cylinder misfire detected)

01 14 63 2033630/2 January 31, 2014. Supersedes Technical Service Bulletin Group 01 number 13-86 dated April 15, 2013 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
A3, A4, allroad, TT, A5, A5 Cabriolet, Q5	2008- 2015	All	4 Cylinder Engines
A6	2012 -2015		

## Condition

REVISION HISTORY		
Revision	Date	Purpose
2	-	Revised header data (Updated applicable engine codes; added DTCs) Revised title
1	04/15/2013	Initial publication

- MIL on.
- Rough idle.
- One or more of the following DTCs are stored in the Engine Control Module (ECM), J623 (address word 01):
  - **DTC P0300** (Random/Multiple Cylinder Misfire Detected).
  - **DTC P0301** (Cylinder 1 Misfire Detected)
  - **DTC P0302** (Cylinder 2 Misfire Detected)
  - **DTC P0303** (Cylinder 3 Misfire Detected)
  - **DTC P0304** (Cylinder 4 Misfire Detected)
- Engine may have reduced performance without significant loss of power or stalling.

## Technical Background

Because there are a number of different misfire faults (unrelated to ignition coil operation) that could cause the MIL to illuminate, proper Guided Fault Finding (GFF) misfire diagnosis must be followed before any ignition coils are replaced.

## Production Solution

Improved ignition coil since 2008 model year.


## Service

### Obtain information from the customer

Ask the customer the following questions about the symptoms of the condition and when it occurred. This information will be necessary for duplicating the condition during service.

- In what situation (while 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 selected, etc.) when the condition occurs?
- Can the complaint be reproduced?

### Workshop procedure

1. Read out the data memory of all engine control units and note the environmental conditions on the DTC log.
    - If there are other entries in addition to combustion misfires, address the other entries before addressing the cylinder misfires.
    - If DTC P0301 – P0304 (Cylinder 1 Misfire Detected – Cylinder 4 Misfire Detected) is accompanied by DTC P1250 (Fuel Level Too Low), it is likely the faults occurred due to a low fuel level and not due to a malfunction of the coils.
    - Review all applicable technical service bulletins (TSBs) related to cylinder misfires and ECM software improvements before diagnosing the misfire condition. For example, if the data shows that the DTC was set during cold start, search ElsaWeb for TSBs related to cold start misfires.
  2. Try to duplicate the 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, particularly if it occurs sporadically or at cold start.
  3. Review the vehicle repair history for previous misfire service or other maintenance service that could be related to the current complaint.
  4. Observe the requirements of GFF. Perform GFF in full according to the proposed sequence (test plan). *Do not* skip any steps.
  5. Complete GFF correctly and set the readiness code. Doing so will ensure that no subsequent faults occur due to the misfire.
  6. In the case of single cylinder misfires:
    - Before replacing components, exchange the coils to determine whether the condition migrates to the other cylinders after the coils have been exchanged. If necessary, perform a test drive to test the condition.
-  **Note:** Always use special tool T40039 to remove ignition coils.
- If the misfire migrates to another cylinder with an exchanged coil, replace only the affected coil.

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7. Verify the repair under the same environmental conditions (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

This TSB is informational only and not applicable to any Audi warranty.

## Required Parts and Tools

Part Number	Part Description	Quantity
T40039	Ignition coil removal tool	1

## Additional Information

All parts and service references provided in this TSB (2033630) are subject to change and/or removal. Always check with your Parts Department and service manuals for the latest information.