Technical Service Bulletin

01 MIL on (DTCs for misfire, P0300 - P0312) after performing Campaign 28F2

01 12 39 2023120/2 January 12, 2012. Supersedes Technical Service Bulletin Group 01 number 10 – 04 dated April 1, 2010 for reasons listed below.

Model(s)	Year	VIN Range	Fifth Digit of VIN
TT	2001	000888 – 007031	C
TT	2001	010017 – 049102	X
TT	2002	000168 – 042277	C
TT	2002	005133 – 009900	X
TT	2003	000233 – 024032	C
TT	2003	000222 – 024025	T
TT	2004	000558 – 029928	C
TT	2004	007023 – 030002	F
TT	2004	000349 – 029716	T
TT	2005	000117 – 017177	C
TT	2005	012805 – 017362	D
TT	2005	000116 – 012682	F
TT	2005	000448 – 017389	T
TT	2006	000128 – 010508	C
TT	2006	000120 – 010509	D
TT	2006	000184 – 010490	T
TT	2007	000001 – 999999	F,E
TT	2008	000001 – 999999	F,E
A3	2006	061021 – 220863	D
A3	2006	000150 – 220843	F
A3	2007	000226 – 098726	D
A3	2007	000229 – 153553	F
A3	2008	000001 – 999999	F,E
A4 (B4)	2001	000165 – 156553	C

A4 (B4)	2002	000003 – 000003	C
A4	2002	014319 – 314607	C
A4	2002	053704 – 314599	T
A4	2003	098522 – 407119	C
A4	2003	100031 – 406848	T
A4	2004	000626 – 303744	C
A4	2004	000608 – 303627	L
A4	2004	000669 – 303612	T
A4	2005	000595 – 126142	C
A4	2005	405683 – 579570	F
A4	2005	409266 – 579567	G
A4	2005	000614 – 579574	L
A4	2005	000571 – 126039	T
A4	2006	000252 – 298020	F
A4	2006	000253 – 097977	G
A4	2006	098173 – 297198	H
A4 First 3 of VIN: WUA	2006	700001 – 700250	L
A4 First 3 of VIN: WAU	2006	000893 – 297822	L
A4	2007	000566 – 190045	F
A4	2007	000569 – 189834	H
A4 First 3 of VIN: WUA	2007	900005 – 905810	U
A4	2008	000001 – 999999	F
A4 Cabriolet	2003	012363 – 033851	C
A4 Cabriolet	2003	003474 – 033839	T
A4 Cabriolet	2004	000203 – 029135	C

A4 Cabriolet	2004	900036 – 901732	L
A4 Cabriolet	2004	000377 – 029211	T
A4 Cabriolet	2005	000155 – 025738	C
A4 Cabriolet	2005	900002 – 902715	L
A4 Cabriolet	2005	000150 – 025666	T
A4 Cabriolet	2006	000131 – 011887	C
A4 Cabriolet	2006	900007 – 900851	L
A4 Cabriolet	2006	000118 – 011890	T
A4 Cabriolet	2007	013458 – 027616	F
A4 Cabriolet	2007	013759 – 027614	H
A4 Cabriolet	2008	000001 – 999999	F
A4 Cabriolet	2009	000001 – 999999	F
A6 / Allroad	2002	005022 – 152647	T
A6 / Allroad First 3 of VIN: WAU	2003	000589 – 116152	D
A6 / Allroad First 3 of VIN: WA1	2003	000602 – 115020	D
A6 / Allroad	2003	000584 – 116100	T
A6 / Allroad First 3 of VIN: WAU	2004	000386 – 104181	D
A6 / Allroad First 3 of VIN: WA1	2004	000394 – 103175	D
A6 / Allroad First 3 of VIN: WA1	2004	000265 – 102043	L
A6 / Allroad	2004	000734 – 104386	T
Allroad First 3 of VIN: WA1	2005	000168 – 027457	D
A6 / Allroad (C5) First 3 of VIN: WA1	2005	000167 – 027295	L

A6	2005	051555 – 125122	G
A6 (C6)	2005	019038 – 125126	L
A6	2005	035977 – 055794	T
A6	2006	015585 – 075340	G
A6	2006	074370 – 195078	H
A6	2006	020313 – 191225	L
A6	2007	002048 – 113889	H
A6	2007	023125 – 111877	N
A6	2007	002253 – 113577	V
A8	2004	000392 – 026440	L
A8	2005	000442 – 017205	L
A8	2005	008681 – 017118	R
A8	2006	003536 – 026798	L
A8	2006	003913 – 026563	R
A8	2007	004243 – 014713	N
A8	2007	000292 – 014930	V
Audi Q7	2007	001257 – 080132	V
Audi Q7	2007	019586 – 080218	Y

Condition

REVISION HISTORY		
Revision	**Date**	**Purpose**
2	-	Revised *Service* Revised *Warranty*
1	4/1/2010	Original publication

- Campaign 28F2/J1 has been performed. (Model year 2002 – 2007 only)
- Rough idle.
- The MIL is flashing or constantly illuminated.
- One or more of the following DTCs are stored:
  - **DTC P0300** (Random/Multiple Cylinder Misfire Detected)
  - **DTC P0301 – P0312** (Cyl.1 Misfire Detected - Cyl.12 Misfire Detected)
- Engine may have reduced performance without significant loss of power or stalling.

Technical Background

Generation II coils listed in Campaign 28F2/J1 generally are *not* the root cause of engine misfire conditions. 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.
- A number of other reasons not directly related to ignition coil operation.

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?

Workshop procedure

1. Read out the data memory of all engine control modules, 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 – P0312** (Cyl.1 Misfire Detected - Cyl.12 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 of 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.

   Tip: 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

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.

Additional Information

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