Technical Service Bulletin

01 Engine sporadically difficult to start - 4.0TFSI

01 18 54 2046724/5 February 14, 2018. Supersedes Technical Service Bulletin Group 01 number 17-37 dated October 4, 2017 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
RS 7	2014 - 2018	All	4.0 TFSI
A8, S6, S7, and S8	2013 - 2018	All	4.0 TFSI
RS 7+, S8+	2016 - 2018	All	4.0 TFSI

Condition

REVISION HISTORY		
Revision	**Date**	**Purpose**
5	-	Revised *Warranty* (Added Note)
4	10/04/2017	Revised header data (Added MY18) Revised *Service* (Added note)
3	06/30/2017	Revised header data (Added MY17)

Customer statement:

- The engine sporadically does not start after reaching operating temperature and being parked for longer stationary periods (engine not completely cooled down). However, the starter motor will turn over normally.

- The engine sporadically does not start or only after long cranking period then runs rough for a few seconds (starter motor turns normal).

Workshop findings:

- Usually there are no DTCs in engine control module (ECM), J623 (address word 0001).

Or

- Sometimes a DTC about fuel metering system "System too rich" will appear in the engine control module (ECM), J623 (address word 0001).

Technical Background

Deviation in fuel-air mixture at engine start.

Technical Service Bulletin

Production Solution

Not applicable.

Service

Perform the following checks:

1. Read the DTC memory of the ECM.

2. Read/assess the measured value with the ODIS measured value identifier IDE09529 "Fuel mass flow fumigation from engine oil". Warm up the engine at idle speed and observe the above measured value together with the engine oil temperature. The evaporation process of fuel in the engine oil starts at about 122°F engine oil temperature.

    a. If the value of the fuel mass flow is at least intermittently above 75 mg/s, this clearly points to a high fuel share in the engine oil (over 0.5 l). In this case, the condition is caused by an extreme short distance operation profile of the customer. We recommend to change the engine oil and to explain the background to the customer. Update the ECM with SVM code 01A225.

    b. If the limit of 75 mg/s is not exceeded and the condition cannot be reproduced, the driving profile of the customer before the workshop visit may have completely consumed the fuel in the engine oil. In this case, we also recommend to enquire about the driving profile of the customer for a possible explanation. In this case, also update the ECM with SVM code 01A225. An oil change is not necessary.

In addition check the following fuel pressure values:

1. Check the holding pressure of the high and of the low pressure fuel pump (fuel pump for pre-supply G6) at room temperature (about 64-68°F):

    - Warm up the engine to an oil temperature of at least 176°F and read the following measured values:

    - IDE00186 low fuel pressure, actual value

    - IDE00188 high fuel pressure, actual value

    - IDE06212 fuel pressure high-pressure accumulator 2

        - Observe the development of the high fuel pressure after switching off the engine (required pressure development: gradual rise to about 80 bar in 10 minutes). If the pressure development is different, the cause of the condition can be a leaking high pressure fuel injector. In this case, borescope the combustion chamber to determine if there is a leak from one of the high pressure fuel injectors.

        - Also, observe the pressure build-up of the low fuel pressure after switching off the engine. In the first five minutes the low pressure must rise above 6 bar and the pressure must be held for another 10 minutes. If the low fuel pressure was built up correctly but drops by more than 1.5 bar in the first 15 minutes, it can be assumed that at least one of the high-pressure fuel pumps is leaking. In this case, replace both high-pressure fuel pumps and change the engine oil.

Technical Service Bulletin

SVM Update Instructions

1. Follow all instructions in TSB 2011732: *00 Software Version Management (SVM), operating instructions*.

2. Update the ECM, J623 (address word 0001) using the SVM action code as listed in the table below if necessary:

Model	Engine	Old Software Part Number	Old Software Version	New Software Part Number	New Software Version (or higher)	SVM Code Input
S6/S7 MY13	CEUC	4G0906014	0011	4G0906014	0012	01A225
S6/S7 MY13	CEUC	4G0906014A	0007	4G0906014A	0008	01A225
S6/S7 MY13	CEUC	4G0906014B	0008	4G0906014B	0009	01A225
S6/S7 MY14	CEUC	4G0906014E	0005	4G0906014E	0006	01A225
S6/S7 MY15	CEUC	4G0906014E	0005	4G0906014E	0006	01A225
S6/S7 MY16	CTGE	4G0906014C	0005	4G0906014C	0006	01A225
S6/S7 MY16-17	CTGE	4G0906014D	0001	4G0906014D	0002	01A225
RS 7 MY14	CRDB	4G0906560A	0005	4G0906560A	0006	01A225
RS 7 MY14	CRDB	4G0906560	0011	4G0906560	0012	01A225
RS 7 MY14	CRDB	4G0906560B	0007	4G0906560B	0008	01A225
RS 7 MY15-16	CWUB	4G0906560D	0001	4G0906560G	0002	01A225
RS 7 MY15-16	CWUB	4G0906560F	0002	4G0906560F	0003	01A225
RS 7 MY17	CWUB	4G0906560G	0001	4G0906560G	0002	01A225
RS 7 MY16-17 Performance	CWUC	4G0906560G	0001	4G0906560G	0002	01A225
A8 4.0TFSI MY13-14	CEUA	4H0906014	0007	4H0906014	0008	01A225
A8 4.0TFSI MY13-14	CEUA	4H0906014A	0005	4H0906014A	0006	01A225
A8 4.0TFSI MY13-14	CEUA	4H0906014B	0004	4H0906014L	0005	01A225

A8 4.0TFSI MY13-14	CEUA	4H0906014C	0004	4H0906014C	0005	01A225
A8 4.0TFSI MY13-14	CEUA	4H0906014D	0004	4H0906014D	0005	01A225
A8 4.0TFSI MY13-14	CEUA	4H0906014H	0005	4H0906014H	0006	01A225
A8 4.0TFSI MY13-14	CEUA	4H0906014L	0004	4H0906014L	0005	01A225
A8 4.0TFSI MY15	CTGA	4H0906014G	0007	4H0906014G	0008	01A225
A8 4.0TFSI MY15	CTGA	4H0906014J	0005	4H0906014J	0006	01A225
A8 4.0TFSI MY15	CTGA	4H0906014K	0004	4H0906014K	0005	01A225
A8 Sport MY16	CTGF	4H0906014N	0001	4H0906014N	0002	01A225
S8 MY13	CGTA	4H0907557	0009	4H0907557	0010	01A225
S8 MY13	CGTA	4H0907557A	0005	4H0907557A	0006	01A225
S8 MY13	CGTA	4H0907557B	0004	4H0907557E	0004	01A225
S8 MY14	CTFA	4H0907557E	0003	4H0907557E	0004	01A225
S8 MY15-16	CTFA	4H0907557C	0005	4H0907557C	0006	01A225
S8 MY15-16	CTFA	4H0907557D	0005	4H0907557D	0006	01A225
S8 MY15-16	CTFA	4H0907557F	0002	4H0907557F	0003	01A225
S8 Plus MY16	DDTA	4H0907557G	0003	4H0907557G	0004	01A225
S8 Plus MY16	DDTA	4H0907557H	0001	4H0907557H	0002	01A225

3. After the SVM update, cycle the ignition.

⚠️ **Note:**

Some newer vehicles may already the latest software from production and do not require the SVM update.

Technical Service Bulletin

Warranty

Claim Type:	• 110 up to 48 Months/50,000 Miles. • 1E1 up to 8 Years/80,000 Miles. • G10 for CPO Covered Vehicles – Verify Owner. • If vehicle is outside any warranty, this Technical Service Bulletin is informational only.		
Service Number:	2470		
Damage Code:	0039		
Labor Operations:	Check software level in ECM (with no update needed)	2470 0199	10 TU
Diagnostic Time:	GFF - Checking and clearing fault codes included in existing labor operations	0150 0000	Time stated on diagnostic protocol (Max 50 TU)
	Road test prior to service procedure	0121 0002	10 TU
	Road test after service procedure	0121 0004	10 TU
Claim Comment:	As per TSB #2046724/5		

All warranty claims submitted for payment must be in accordance with the *Audi Warranty Policies and Procedures Manual*. Claims are subject to review or audit by Audi Warranty.

⚠️ **Note:**

- If one or more injectors are replaced use Service Number 2440, Damage Code 0050.
- If high pressure fuel pump/pumps are replaced use Service Number 2463, Damage Code 0050.

See ElsaPro for model specific Labor Operations.

Additional Information

The following Technical Service Bulletin(s) will be necessary to complete this procedure:

- TSB 2011732, *00 Software Version Management (SVM), operating instructions*.
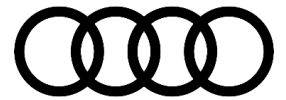
Technical Service Bulletin

All parts and service references provided in this TSB (2046724) are subject to change and/or removal. Always check with your Parts Department and service manuals for the latest information. Please check the Repair Manual for fasteners, bolts, nuts, and screws that require replacement during the repair.