

Technical Service Bulletin

Topic	20 EPC Light on: Fuel level sender DTC entry B10581B, B103E1B resistance too high
Market area	United States 444 Volkswagen of America, Inc. (6444)
Brand	Audi
Transaction No.	2070211/3
Level	EH
Status	Released for publishing
Release date	Apr 24, 2025

New customer code

Object of complaint	Complaint type	Position
engine -> fuel supply -> fuel supply line (low pressure)	component, automotive fluids -> damaged	rear
information, navigation, communication, entertainment -> malfunction display symbols -> emissions control system malfunction display	functionality -> activates without cause	
information, navigation, communication, entertainment -> malfunction display symbols	functionality	
information, navigation, communication, entertainment -> malfunction display symbols -> emissions control system malfunction display	functionality -> activates	
information, navigation, communication, entertainment -> malfunction display symbols -> emissions control system malfunction display	functionality -> does not switch off/disconnect	
information, navigation, communication, entertainment -> malfunction display symbols -> emissions control malfunction display	functionality -> activates	
information, navigation, communication, entertainment -> malfunction display symbols -> emissions control malfunction display	functionality -> does not switch off/disconnect	
information, navigation, communication, entertainment -> malfunction display symbols -> emissions control malfunction display	functionality -> activates without cause	

New workshop code

Object of complaint	Complaint type	Position
engine -> fuel supply -> fuel level sensor	electrical -> short circuit to ground	
engine -> fuel supply -> fuel level sensor	electrical -> resistance too high	
engine -> fuel supply -> fuel level sensor	electrical -> short circuit to positive	

Vehicle data

A6, A7, Q7, Q8

Sales types

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
4A*	2021	A		*	*	*
4A*	2022	A		*	*	*

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
4A*	2023	A		*	*	*
4K*	2021	A		*	*	*
4K*	2022	A		*	*	*
4K*	2023	A		*	*	*
4M*	2021	A		*	*	*
4M*	2022	A		*	*	*
4M*	2023	A		*	*	*

PR numbers

PR numbers
? :with 7J3
? :or ? :with 9S8
? :or ? :with 9S9

Control units

Diagnostic address	Software part number	Software version	Hardware part number	Hardware version
0017 - Instrument cluster	*	0022	*	*
0017 - Instrument cluster	*	0053	*	*
0017 - Instrument cluster	*	0055	*	*
0017 - Instrument cluster	*	0056	*	*
0017 - Instrument cluster	*	0058	*	*
0017 - Instrument cluster	*	0059	*	*
0017 - Instrument cluster	*	0060	*	*
0017 - Instrument cluster	*	0063	*	*
0017 - Instrument cluster	*	0107	*	*
0017 - Instrument cluster	*	0115	*	*
0017 - Instrument cluster	*	0111	*	*
0017 - Instrument cluster	*	0116	*	*
0017 - Instrument cluster	*	0117	*	*
0017 - Instrument cluster	*	0118	*	*
0017 - Instrument cluster	*	0119	*	*

A6, A7, Q7, and Q8

Sales types

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
4A*	2019	A		*	*	*
4A*	2020	A		*	*	*
4K*	2019	A		*	*	*
4K*	2020	A		*	*	*
4M*	2016	A		*	*	*
4M*	2017	A		*	*	*

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
4M*	2018	A		*	*	*
4M*	2019	A		*	*	*
4M*	2020	A		*	*	*

A6, A7, Q7, and Q8

Sales types

Type	MY	Brand	Designation	Engine code	Gearbox code	Final drive code
4A*	2024	A		*	*	*
4A*	2025	A		*	*	*
4K*	2024	A		*	*	*
4K*	2025	A		*	*	*
4M*	2024	A		*	*	*
4M*	2025	A		*	*	*

Documents

Document name
master.xml

Condition

REVISION HISTORY		
Revision	Date	Purpose
3	-	Revised <i>Service</i> (Updated Software table)
2	07/10/2024	Revised header (Add Model Year, Model(s), etc.) Revised <i>Condition</i> (Add workshop findings) Revised <i>Technical Background</i> (Add updated background) Revised <i>Product Solution</i> (Add Solution introduction dates) Revised <i>Service</i> (Add repair directions) Revised <i>Warranty Table</i> (Add additional Labor Ops) Revised <i>Parts and Tools</i> (Add Parts list)
1	05/05/2023	Initial publication

Customer states:

An EPC warning and a fuel system warning are displayed in the instrument cluster.

Workshop findings:

The following DTC are stored in the Comfort System Central Control Module, J393 (address word 0046):

- **B10581B** Fuel level sensor 2 Resistance too high with symptom number 65698.

or

- **B103E1B** Fuel level sensor 1 Resistance too high with symptom number 65694.

Technical Background

Deposits build up on tank senders.

Production Solution

Optimized software latency/ debounce time CW 50/2023.

Production change SVM 46A033:

C8:

4K8.909.501.BC [0005] -> Change included, implemented in production from week 50/23 onward.

Q7:

4M0.909.501BB [0009] -> Change included, implemented in production from week 48/23 onward.

4M0.909.501BD [0011] -> Change included, implemented in production from week 29/24 onward.

Q8:

4M8.909.501BC [0009] -> Change included, implemented in production from week 50/23 onward.

4M8.909.501BD [0006] -> Change included, implemented in production from week 50/23 onward.

4M8.909.501BE [0011] -> Change included, implemented in production from week 32/24 onward.

Service

1. Follow all instructions in TSB 2011732: *00 Software Version Management (SVM), operating instructions* and TSB 2047812: *00 SD Creator: how to set up and use the SD creator for obtaining vehicle software updates via the MirrorServer*.

2. Update the J393 (0046) using the SVM action code as listed in the table below, if necessary:

Vehicles from model years 2016-2020

Issue with tank sender 1: Please run SVM code **46A033** and then check the complaint again. If the complaint has not been remedied, please replace tank sender 1.

Issue with tank sender 2: Please run SVM code **46A033** and then check the complaint again. If the complaint has not been remedied, please replace the tank and tank sender 1.

Vehicles from model years 2021-2023

Applies to vehicles with high-voltage components:

To prevent the high-voltage battery from charging during the software update, the high-voltage charging cable on vehicles with high-voltage components must be unplugged BEFORE the SVM code is entered. Please note that charging the high-voltage battery during a software update can cause damage to the high-voltage components.

Issue with tank sender 1: Please use SVM code **46A033**. Also check the software version for the Audi virtual cockpit (diagnostic address 0017) when checking the second update. Check the complaint again. If the complaint has not been remedied, please replace tank sender 1.

Issue with tank sender 2: Please use SVM code **46A033**. Also check the software version for the Audi virtual cockpit (diagnostic address 0017) when checking the second update. Check the complaint again. If the complaint has not been remedied, please replace the tank and tank sender 1.

Vehicles with software **0022, 0053, 0055, 0056, 0058, 0059, 0060 or 0063** in the Audi virtual cockpit (diagnostic address 0017) Update the Audi virtual cockpit to software version **0065** using SVM code **17A053**.

For this purpose, order the USB stick with part number **8W6 906 961 AE** in advance or download the software onto a USB stick that complies with the USB 2.0 specification using the SD creator and part number **8W6 906 961 AE**.

Start the update on the workshop tester by selecting “flash” and entering the specified SVM code. When the following (or similar) appears while you are running the program: “... please insert update medium with the following part number...”, insert the USB stick into a USB port in the vehicle which is suitable for data transmission.

If the message "...Hold the vehicle key to the transponder..." is shown, place the vehicle key so that it makes full surface contact against the marking provided in the center console until the Audi virtual cockpit shows that the update process has started, and keep the key in this position until the update process is completed.

Vehicles with software **0107, 0111, 0115, 0116, 0117, 0118 or 0119** in the Audi virtual cockpit (diagnostic address 0017).

Update the Audi virtual cockpit to software version **0122** using SVM code **17A053**.

For this purpose, order the USB stick with part number **8W6 906 961 AF** in advance or download the software onto a USB stick that complies with the USB 2.0 specification using the SD creator and part number **8W6 906 961 AF**.

Start the update on the workshop tester by selecting “flash” and entering the specified SVM code. When the following (or similar) appears while you are running the program: “... please insert update medium with the following part number...”, insert the USB stick into a USB port in the vehicle which is suitable for data transmission.

If the message "...Hold the vehicle key to the transponder..." is shown, place the vehicle key so that it makes full surface contact against the marking provided in the center console until the Audi virtual cockpit shows that the update process has started, and keep the key in this position until the update process is completed.

Vehicles from model years 2024-2025

Issue with tank sender 1: Please run SVM code **46A033** and then check the complaint again. If the complaint has not been remedied, please replace tank sender 1.

Issue with tank sender 2: Please run SVM code **46A033** and then check the complaint again. If the complaint has not been remedied, please replace the tank and tank sender 1.

Upload all relevant GFF logs to GFF paperless. There should not be an even memory entry (resistance too high) for tank sender 1 or 2 that was logged at the same time (e.g. in cases where the concern occurs after the software update).

Attach the event memory log. There should not be an event memory entry (resistance too high) (for tank sender 1 that was logged at the same time.

Model	Diagnostic Address	Old Software Part Number	Old Software Version	New Software Part Number (or higher)	New Software Version (or higher)	SVM Code Input
MY19	0046	4K8909501D		4K8909501D	0037	46A033

A6/A7
MY20 A6/A7
MY20 A6/A7
MY21 A6/A7
MY22 A6/A7
MY23 A6/A7
MY17 Q7
MY18 Q7
MY19 Q7
MY19 Q7
MY19 Q7
MY20 Q7
MY21 Q7
MY22 Q7
MY23 Q7
MY18 Q8
MY19 Q8

4K8909501G		4K8909501G	0045
4K8909501H		4K8909501H	0045
4K8909501K		4K8909501K	0052
4K8909501N		4K8909501N	0056
4K8909501R		4K8909501R	0061
4M0909501G		4M0909501G	0064
4M0909501J		4M0909501J	0065
4M0909501L		4M0909501L	0072
4M0909501M		4M0909501M	0072
4M0909501P		4M0909501P	0072
4M0909501N		4M0909501N	0081
4M0909501S		4M0909501S	0086
4M0909501AA		4M0909501AA	0089
4M0909501AB		4M0909501AB	0091
4M8909501A		4M8909501A	0017
4M8909501D		4M8909501D	0025

MY20 Q8	4M8909501E		4M8909501E	0029
MY21 Q8	4M8909501G		4M8909501G	0036
MY22 Q8	4M8909501J		4M8909501J	0041
MY23 Q8	4M8909501K		4M8909501K	0042
MY24 A6/RS6/ A7/RS7	4K8909501BA		4K8909501BA	0005
MY24 Q7/ SQ7	4M0909501BA		4M0909501BA	0006
MY24 SQ8	4M8909501BB		4M8909501BB	0008

Warranty

Claim Type:	If the vehicle is outside of any warranty, this Technical Service Bulletin is informational only.		
Service Number:	2010		
Damage Code:	0010		
Labor Operations:	Replace fuel tank	2010 55XX	See SRT with associated operations
	Remove and install fuel gauge sender	2015 19XX	See SRT with associated operations
	Software Update (Includes checking for DTCs)	0151 0060	Time stated on the diagnostic protocol
	Charge battery	2706 8950	See SRT with associated operations
Claim Comment:	As per TSB 2070211/3		

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.

Required Parts and Tools

Always check with your Parts Department and/or ETKA for the latest information and parts bulletins.

Part Number	Part Description	Quantity
See ETKA	Fasteners, Bolts, Nuts, and Screws as needed per the Repair Manual	See ETKA/ELSA
See ETKA	Fuel level sender 1 (If needed)	01
See ETKA	Fuel tank (If needed)	01

Additional Information

All parts and service references provided in this TSB (**2070211**) are subject to change and/or removal.

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