Technical Service Bulletin

91 Driver assist systems with various malfunctions (aLDW performance, ACC inop when towing, error messages, etc.)
91 22 74 2063497/2 January 31, 2022. Supersedes Technical Service Bulletin Group 91 number 21-06 dated June 15, 2021 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
A6, A7, A8, e-tron quattro, and A8	2019	All	Not Applicable
A6, A6 allroad, S6, A7, S7, A8, S8, e-tron Sportback quattro, Q7, SQ7, Q8, SQ8, and RS Q8	2020	All	Not Applicable

Condition

REVISION HISTORY		
Revision	**Date**	**Purpose**
2	-	Revised *Service* (Added note about early e-tron vehicles)
1	06/15/2022	Initial publication

Customer states:

Lane departure warning (aLDW)

- The aLDW system is active despite being shown as deactivated in the instrument cluster/MMI.

- The indicator lamp for aLDW flickers.

- There are aLDW performance issues, especially on roads without center lines.

Adaptive cruise assist (ACA)

- The lane-keeping tugs slightly when driving under bridges.

- An incorrect speed limit is shown when driving on a freeway ramp.

- "Drive in center of lane" message displayed in the instrument cluster despite driving in the center of the lane.

- On vehicles with the control module for laserscanner (ACA), J1122 (address word 00CD) reacts to phantom objects.

- ACA reacts to objects in the adjacent lane.

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- Vehicles with steel suspension: ACA disengages/loses calibration when towing a trailer/bike rack.

Overhead view camera

- The overhead view camera sporadically doesn't activate. The last context remains displayed on the MMI and only the visual parking aid is shown on the right side of the screen.

- Guidelines and/or vehicle pictograms sporadically aren't shown in the overhead camera view.

Technical Background

Multiple DTCs have been adjusted to no longer cause an error message in the instrument cluster: (e.g. DTC B200FF9 with symptom code 2117711).

Production Solution

New software in production, multiple driver assist features have been optimized.

Service

This TSB replaced the following Pending Service Solutions:

• (PSS) TSB 2055906: PSS 90 Audi adaptive light, pre sense, or Adaptive Cruise Assist malfunction, DTC B200FF9 stored in the driver assist.

• (PSS) TSB 2061157: PSS 90 Traffic sign based speed warning threshold settings are lost.

• (PSS) TSB 2059889: *PSS 90 Audi adaptive light or adaptive driving assistant malfunction, DTC C12B3FB or B200FF3 stored in the driver assist.*

Required equipment:

• ODIS Tester.

• SVM Code.

• Software update package on SD Card if required (see *Required Parts and Tools* or download the software from Mirror Server using the SD Creator Program).

Time to complete update:

• Approximately 60-120 minutes (includes 50-110 minutes for the software update and 10 minutes for the SVM work).

Service Work:

All outstanding campaign(s) **must have been completed** prior to running this update.

Please familiarize yourself with all steps of this update before proceeding.

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1. Determine driver assist systems control module (zFAS), J1121 (address word 00A5) system designation via ODIS. (Figure 1).

Address: 00A5 System name: 00A5 - Front Sensor for Driver Assistant Systems Log versions: UDS/ISOTP (Results: 3)

- Identification:

Data source:	Vehicle
Hardware part number:	4N0907107F
Part number:	4KE907107AP
Hardware version number:	H08
Software version number:	0295
Production date:	
Coding:	
Coding:	
Ability to flash:	Unknown
System name:	zFAS Var A
ASAM base version:	BV_FrontSensoDriveAssisSysteUDS
ASAM 2D/ODX data set:	EV_ZFASAU516
ASAM 2D/ODX data set version:	001007
ASAM/ODX control module version being used:	EV_ZFASAU516_001
Target data container:	4K0909466R
Version of the target data container:	0050
Equipment code:	00 00 00 00 00 00 00 00
System abbreviation:	J1121

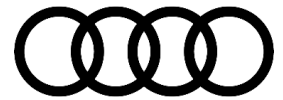*Figure 1.* zFAS system designation.

2. Select which SD cards are required according to the system designation read in the prior step:

    a. **zFAS Var A:** No SD card is required.

    b. **zFAS Var B/C**: SD Card P/N: **4N0906961AR** is required.

3. ⚠️ **Note:**

Federal law requires the airbag's Event Data Recorder (EDR) to be backed up pror to running the update in this TSB:

• Please have the customer sign the **declaration of consent**, available in the attachments of this TSB, and upload a picture/scan of it to DOC-IT.

• In ODIS, run the test program "J234 – Technical Service Bulletin (TSB) 2061023" via "Choose self- test: >> 0015 – Airbag – J234 >> 0015 – Technical Service Bulletin (TSB).

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• Make sure that the diagnostic session that includes the results from the aforementioned test plan I   s uploaded to GFF Paperless.

4. Update the zFAS bootloader using SVM Code **FASISKD4A001** (this update should take about 10 minutes).

⚠️ **Note:**

The driver assist systems control module (zFAS), J1121 (address word 00A5) will not be accessible via diagnostics communication until all the following steps have been completed successfully.

5. Exit the flash context in ODIS. Otherwise, it will not be possible to execute the following steps.

6. Deactivate the "Automatic online map update" function in the MMI via *"Settings" >> "System update"*. Not doing so could cause the following update to fail.

7. If the vehicle has **zFAS Var B/C** installed, please insert the SD Card **4N0906961AR** into the SD Card reader of the vehicle (please see TSB 2056558: *91 MIB2+ Software Update Instructions* for further information).

ℹ️ **Tip:** This step is not required for zFAS Var A.

8. Update the zFAS application software using SVM Code **FASISKD4A002** (this update should take about 30 minutes).

⚠️ **Note:**

Important: Always start the update out of ODIS. Please do not perform the update via the red engineering menu (method 2) unless you have been given prior approval from TAC.

⚠️

Applies to e-tron MY 19 only:

Check the software version of the diagnostic interface for databus – J533 – (diag. addr. 0019). If it has software version 0322 or 0323, it may not be possible to complete the next steps.

In this case, please update the diagnostic interface for databus – J533 – with SVM code 19A022 first.

IMPORTANT: please activate DoIP in the ODIS settings before updating the diagnostic interface for databus.

9. Exit the flash context in ODIS. Otherwise, it will not be possible to execute the following steps.

10. Update the zFAS peripheral control modules using SVM code **FASISKD4A003** (this update should take between 20 minutes and 30 minutes).

11. Let the vehicle perform a bus sleep cycle.

• Exit the flash context.

• Switch the vehicle's ignition off.

• Remove the battery charger and diagnostic interface dongle from the vehicle.

• Close the hood, trunk, all doors, and lock the vehicle.

• Wait approximately six minutes without handling the vehicle.

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Tip: After the update procedure, **DTC U110100** (Component protection active (active/static)) will be entered in the driver assist systems control module (zFAS), J1121 (address word 00A5). It is **not** possible to delete this DTC.

However, this DTC <u>does not</u> cause any customer-facing error messages, or function impairments and can be ignored. Please refer to TSB 2062601: *90 DTC U110100 is stored in the driver assistance systems control module* for more information.
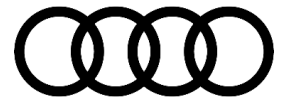
Note:

Customer information:

Please inform the customer of the following functional changes to the adaptive cruise assist (if installed):

• In stop-and-go traffic, the system can slow the vehicle to a complete stop and then automatically drive off again in certain situations. The period that the vehicle is ready to drive off automatically has been extended to approximately 30 seconds as a result of this software update.

• This update includes multiple control modules. Certain customer personalization settings might be reset to factory settings by this update.

• The dealership/workshop, Audi of America, and/or AUDI AG are not liable for third-party modifications, like undocumented retrofits, non-genuine accessories, or any other modification not approved by Audi of America that might be rendered inoperable by this update.

Step	Vehicle	SD Creator Part Number	SVM Code
1	A6, A7, A8, Q7, Q8, e-tron quattro, and e-tron Sportback	---	FASISKD4A001
2		4N0906961AR	FASISKD4A002
3		---	FASISKD4A003

Warranty

Claim Type:	• 110 up to 48 Months/50,000 Miles. • G10 for CPO Covered Vehicles – Verify Owner. • If the vehicle is outside any warranty, this Technical Service Bulletin is informational only.		
Service Number:	9093		
Damage Code:	0039		
Labor Operations:	Software Update (Includes checking for DTCs)	0151 0000	Time stated on the diagnostic

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			protocol (200 TU Max)
Diagnostic Time:	GFF	No allowance	0 TU
	Road test prior to the service procedure	No allowance	0 TU
	Road test after the service procedure	0121 0004	10 TU
Claim Comment:	As per TSB 2063497/1		

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

Model	SD Card	Quantity
All in this TSB	4N0906961AR	01 (Shop tool)

Additional Information

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

- TSB 2011732: *00 Software Version Management (SVM), operating instructions.*
- TSB 2056558: *91 MIB2+ Software Update Instructions*.
- TSB 2047812: *00 SD Creator: how to set up and use the SD Creator for obtaining vehicle software updates via the MirrorServer.*
- TSB 2062601: *90 DTC U110100 is stored in the driver assistance systems control module.*

All part and service references provided in this TSB (2063497) are subject to change and/or removal. Always check with your Parts Department and/or ETKA for the latest information and parts bulletins. Please check the Repair Manual for fasteners, bolts, nuts, and screws that require replacement during the repair.