



# Technical Service Bulletin

**91 Driver assist systems various malfunctions (Intersection/side assist, ACC inop when towing, etc.), DTC B200FF9**

**91 22 60 2063502/4 January 6, 2022. Supersedes Technical Service Bulletin Group 91 number 21-43 dated October 20, 2021 for reasons listed below.**

| Model(s)                                                                                                                                      | Year | VIN Range       | Vehicle-Specific Equipment |
|-----------------------------------------------------------------------------------------------------------------------------------------------|------|-----------------|----------------------------|
| A6, A7,<br>A6 allroad,<br>S6, S7, RS<br>6, RS 7, e-<br>tron quattro,<br>e-tron<br>Sportback,<br>Q7, SQ7,<br>A8, A8<br>PHEV, Q8,<br>SQ8, RS Q8 | 2020 | All             | Not applicable             |
| SQ8, RS Q8                                                                                                                                    | 2021 | 000001 – 018409 | Not Applicable             |
| Q8                                                                                                                                            | 2021 | 000001 – 018895 | Not Applicable             |
| A6, A7,<br>A7 PHEV<br>A6 allroad,<br>A6 Avant,<br>RS 6 Avant                                                                                  | 2021 | 000001 – 040551 | Not Applicable             |
| S6, S7, RS<br>6, RS 7                                                                                                                         | 2021 | 900000 – 904242 | Not Applicable             |
| Q7, SQ7                                                                                                                                       | 2021 | 000001 – 022611 | Not Applicable             |
| A8, A8<br>PHEV, S8                                                                                                                            | 2021 | 000001 – 009688 | Not Applicable             |
| e-tron<br>quattro, e-<br>tron<br>Sportback                                                                                                    | 2021 | 000001 – 017455 | Not Applicable             |

## Condition

| REVISION HISTORY |            |                                                                   |
|------------------|------------|-------------------------------------------------------------------|
| Revision         | Date       | Purpose                                                           |
| 4                | -          | Revised <i>Service</i> (Updated Step 2 C)                         |
| 3                | 10/21/2021 | Revised <i>Service</i> (Updated Note to include warning messages) |



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|   |            |                                                                            |
|---|------------|----------------------------------------------------------------------------|
| 2 | 09/03/2021 | Revised header (Added VIN breaks)<br>Revised <i>Condition</i> (Added Note) |
|---|------------|----------------------------------------------------------------------------|



## Note:

This TSB **does not apply** to DTC(s) B200FF9 in the driver assist systems control module, J1121 (address word 00A5). Please refer to PSS 2061489: *PSS 90 Pre sense malfunction/driver assist systems sporadically inop, DTC B200FF9 is stored in the driver assist module.*

## Customer states:

### Lane change assist/Intersection assist:

- The lane change assist/intersection assist is sporadically not working. One of the following messages is displayed in the instrument cluster:
- "Intersection assist: fault. Please contact service."
- "Side assist and exit warning system: fault. Please contact service."
- "Rear cross-traffic assist: fault. Please contact service."
- "Audi pre sense: fault. Please contact service."

### Traffic sign recognition

- The traffic sign based speed limit settings are not permanently stored and are lost with every ignition cycle.

### Adaptive Cruise Assist

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

## Workshop findings:

### Lane change assist/Intersection assist:

The following DTC may be entered in the front corner radar control modules, J1088/J1089 (address words 00DB/00DC):

- DTC B200FF9 (Internal malfunction) with symptom code 1311089.

## And/or

The following DTC may be entered in the lane change assist control modules J769/J770 (address words 003C/00CF):



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- DTC B200FF9 (Internal Malfunction) with one of the following symptoms codes 1311057, 1311058, 1311059, and/or 1311060.

## Other

- Other customer concern (see above) may not enter a DTC in the vehicle.

## Technical Background

Multiple driver assist features have been optimized. This update will affect the following control modules:

- Driver assist systems control module, J1121 (address word 00A5).
- Adaptive cruise control module, J428 (address word 0013).
- Lane change assist control module, J769/J770 (address words 003C/00CF).
- Front left/front right radar sensor control module for object detection, J1088/J1089 (address words 00DB/00DC).
- Control module for laser distance control, J1122 (address word 00CD).
- Airbag control module, J234 (address word 0015).

## Production Solution

New software in production.

## Service

### Required equipment:

- ODIS Tester.
- SVM code.
- Software update package on SD Card if required (see *Required Parts and Tools* or download the software from MirrorServer using the SD Creator Program).

### Time to complete update:



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

Service work:



Note:

All outstanding campaigns must have been completed prior to running this update. Please familiarize yourself with all steps of this update before proceeding.

If any warning messages are displayed in the instrument cluster, those have to be addressed prior to updating the vehicle as running the update with active instrument cluster warning messages may brick the driver assist control module, J1211 (address word 00A5).

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



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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. MY20 Audi e-tron quattro and Audi e-tron sportback: **zFAS Var B/C:** SD Card P/N: **4N0906961AR** is required.
  - C. All other vehicles: **zFAS Var B/C:** USB-C drive P/N: **4N1906961** is required (Using a SD Card as an update medium is possible if the vehicle is equipped with a built-in SD Card reader).
3.  Note:



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Federal law requires the airbag's Event Data Recorder (EDR) to be backed up prior to running the update in this TSB (required **only** for MY20 Audi e-tron quattro and Audi e-tron Sportback, skip to Step 4 for all other vehicles).

- 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).
  - Make sure that the diagnostic session that includes the results from the aforementioned test plan is uploaded to GFF Paperless.
4. Update the peripheral control modules using SVM code **FASISKD5A001** (this update should take between 20 min and 30 min).



#### Customer information:

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



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

- If the vehicle has **zFAS Var B/C** installed, please insert the SD Card **4N0906961AR** into the SD Card reader (MY20 Audi e-tron quattro and Audi e-tron sportback).

Or

- Insert the USB-C drive **4N1906961** into an USB-C port (all other vehicles) in the vehicle.

For MY20 Audi e-tron quattro and Audi e-tron sportback, please refer to TSB 2056558: *91 MIB2+ Software Update Instructions* for further information.

All other vehicles, please refer to TSB 2060523: *91 MIB3 Software Update Instructions* for further information.



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7. Update the zFAS application software using SVM Code FASISKD5A002 (this update should take about 30 minutes).



Note:

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.

| Step | Vehicle                                                                         | SD Creator Part number | SVM code     |
|------|---------------------------------------------------------------------------------|------------------------|--------------|
| 1    | MY20 Audi e-tron quattro, Audi e-tron sportback quattro                         | ---                    | FASISKD5A001 |
| 2    |                                                                                 | 4N0906961AR            | FASISKD5A002 |
| 1    | A6, A7, A8, Q7, Q8, MY21 Audi e-tron quattro, and Audi e-tron sportback quattro | ---                    | FASISKD5A001 |
| 2    |                                                                                 | 4N1906961              | FASISKD5A002 |

8. 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.

## Warranty

|             |                                                                                     |
|-------------|-------------------------------------------------------------------------------------|
| Claim Type: | <ul style="list-style-type: none"><li>• 110 up to 48 Months/50,000 Miles.</li></ul> |
|-------------|-------------------------------------------------------------------------------------|



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|                   |                                                                                                                                                                                                     |              |                                                     |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|-----------------------------------------------------|
|                   | <ul style="list-style-type: none"><li>G10 for CPO Covered Vehicles – Verify Owner.</li><li>If the vehicle is outside any warranty, this Technical Service Bulletin is informational only.</li></ul> |              |                                                     |
| Service Number:   | 9093                                                                                                                                                                                                |              |                                                     |
| Damage Code:      | 0039                                                                                                                                                                                                |              |                                                     |
| Labor Operations: | Software Update (Includes checking for DTCs)                                                                                                                                                        | 0151 0000    | Time stated on the diagnostic protocol (Max 200 TU) |
| 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 #2063502/4                                                                                                                                                                               |              |                                                     |

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       |
|---------------------------------------------------------|-------------|----------------|
| MY20 Audi e-tron quattro, Audi e-tron sportback quattro | 4N0906961AR | 01 (Shop tool) |
| A6, A7, A8, Q7, Q8, MY21 Audi e-tron                    | 4N1906961   | 01 (Shop tool) |



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|                                               |  |  |
|-----------------------------------------------|--|--|
| quattro, and Audi e-tron<br>sportback quattro |  |  |
|-----------------------------------------------|--|--|

## 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 2060523, *91 MIB3 Software Update Instructions.*
- TSB 2062601, *90 DTC U110100 is stored in the driver assistance systems control module.*

All part and service references provided in this TSB (2063502) 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.

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