

Technical Service Bulletin



90 Audi pre sense warning, warning jolt, and/or brake engagement (MLB)

90 23 11 2058077/6 March 8, 2023. Supersedes Technical Service Bulletin Group 90 number 21-03 dated May 13, 2021, for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
A6, A7, A8, and Q8	2019 – 2024	All	Not Applicable
e-tron quattro	2019 2021 – 2024		
A6 allroad, S6, S7, S8, e-tron Sportback quattro, Q7, SQ7, SQ8, and RS Q8	2020 – 2024		
A8 e quattro	2020 – 2021		
RS 6 Avant, and RS 7	2021 – 2024		
A7 e quattro	2021 – 2022		
e-tron S quattro, e-tron GT, and RS e-tron GT	2022 -2024		

Condition

REVISION HISTORY		
Revision	Date	Purpose
6	-	Revised header (added models and years, removed MQB vehicles (please see TSB 2069662) Revised condition (updated applicable conditions) Revised technical background (updated SSP reference) Revised service (updated service instructions)
5	05/13/2021	Revised header (Added models and model years) Revised <i>Additional Information</i> (Added reference)



4	6/17/2020	Revised header (Added models and model years) Revised <i>Service</i> (Added Q3 procedure)
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Customer States:

The customer is concerned about an unexpected Audi pre sense front intervention:

- Audi pre sense front warning.

OR

- Audi pre sense front warning jolt.

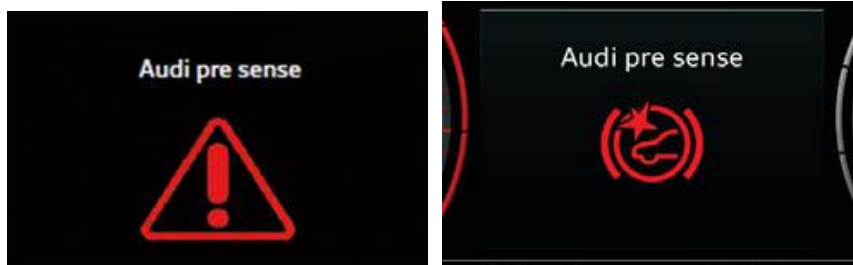
OR

- Audi pre sense front partial braking.

OR

- Audi pre sense emergency braking.

The Audi pre sense symbol appears in the instrument cluster and an audible warning is issued at the same time (Figures 1-2). At the same time, neither the hazard flashers were activated, nor the side window closed.



Figures 1-2: The Audi pre sense symbol.

Workshop findings:

- In a test drive, the concern cannot be reproduced.

Technical Background

Be aware of the safety instructions and the system limits of the supporting systems, sensors, and cameras (see the owner's manual and self-study program 662, Audi A8 type 4N: safety and assist systems).



Production Solution

Not Applicable

Service

Ask the customer the following questions and note them in the claim comments:

- When did the Audi pre sense front intervention take place? [day, month and year]
- Was the red Audi pre sense symbol displayed in the instrument cluster during the complaint? [yes/no]
- Was a warning tone issued at the same time that the red Audi pre sense symbol was displayed? [yes/no]
- Were the hazard warning lights switched on or the side windows closed at the same time? [yes/no]

Perform the **Audi pre sense test program**. The test program can be found under:

- *Test plan > Select self-test > Diagnostic capable system > 00A5 - Front sensors for driver assistant systems > 00A5 - Technical Service Bulletin (TSB) > Audi pre sense*

The test program asks you to enter the date of the customer complaint.

The test program checks whether Audi pre sense front interventions took place in the period between three days before and three days after the date entered.

At the end the program provides a list of the Audi pre sense front interventions during this period.

Depending on the result of the test program, proceed as follows:

Result of the ODIS test program “Audi pre sense”:	Explanation	Further procedure:
The customer experienced no Audi pre sense intervention.	The customer did not see the Audi pre sense symbol in the instrument cluster.	Continue your analysis. This TSB does not apply.
Audi pre sense basic event	The customer saw the Audi pre sense symbol, but a warning tone did not sound at the same time.	Explain the operation and system limits of Audi pre sense basic to the customer. Use the owner's literature and the self-study program.



		Continue your analysis. This TSB does not apply.
Audi pre sense rear event	<p>The radar sensors of the lane change assist permanently monitor the traffic behind the vehicle, even if Audi side assist is not activated. Control units J769 and J770 evaluate the received signals, process them and thus detect the distance of the vehicles behind within the detection range.</p> <p>If one of the lane change assist control units detects a critical pre sense rear situation, lane change assist control unit J769 sends various information to the data bus diagnostic interface J533 (gateway). The definition of a critical situation is that there could be a rear impact from the vehicle behind if the driver of the vehicle behind were not to take any further action.</p> <p>The data bus diagnostic interface J533 transmits these signals to the airbag control unit J234. On the basis of the available information, the J234 decides which actuators are activated and sends this information to different control units.</p>	<p>Explain to the customer the operation and system limits of Audi pre sense rear.</p> <p>Use the owner's literature and the self-study program.</p> <p>Continue your analysis. This TSB does not apply.</p>
Audi pre sense front warning	<p>If the vehicle approaches a vehicle traveling in front or a stationary vehicle in a critical situation, the instrument cluster can provide the driver with visual and acoustic warnings within certain limits.</p>	<p>Explain the operation and system limits of Audi pre sense front to the customer.</p> <p>Use the owner's literature and the self-study program.</p> <p>Note the Audi pre sense adjustment options (early/medium/late/off) in the MMI. These influence the timing of the warning.</p>



Audi pre sense front warning jolt	If the driver does not respond to the warnings, the ABS control unit J104 issues an urgent warning with a jolt. The warning jolt is a very short, clearly noticeable application of the brakes that does not slow down the vehicle. It is intended to bring the driver's attention back to the traffic situation and to signal that an immediate reaction is necessary to prevent a collision.	Explain the operation and system limits of Audi pre sense city and Audi pre sense front to the customer. Use the owner's literature and the self-study program.
Audi pre sense front partial braking	When the driver applies the brakes, Audi pre sense front calculates whether the driver is braking sufficiently to prevent a collision. If this is not the case, the necessary braking performance is increased according to the situation up to the strength required to bring the vehicle to a standstill.	Explain to the customer that he/she operated the brakes and Audi pre sense front provided additional braking assistance.
Audi pre sense front emergency braking	If the driver also fails to react to the warning jolt or only releases the accelerator pedal, the ABS control unit J104 brakes the vehicle independently. Depending on the vehicle speed, the braking performance can be gradually increased up to a full deceleration (emergency stop).	If the customer feels that the vehicle braked for no reason and you require technical support, please contact the Technical Assistance Center (TAC).

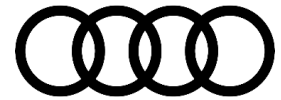
Please note that only a limited number of events are stored for each category.

The **Audi pre sense test program** must only be performed **once** per complaint. As an exception to this, if the customer specifies several times when the complaint occurred, the **Audi pre sense test program** may be performed **a maximum of three times for the complaint.**

Warranty

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



	<ul style="list-style-type: none"> • G10 for CPO Covered Vehicles – Verify Owner. • If the vehicle is outside any warranty, this Technical Service Bulletin is informational only. 		
Service Number:	9163		
Damage Code:	0039		
Diagnostic Time:	GFF	0150 0000	Time stated on the diagnostic protocol (Max 100 TU)
	Road test prior to the service procedure	No allowance	0 TU
	Road test after the service procedure	No allowance	0 TU
Claim Comment:	As per TSB 2058077/6		

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.

Additional Information

More information on this system can be found in the following resources:

- SSP: 662, Audi A8 type 4N: safety and assist systems.
- TSB 2069662: 90 Audi pre sense warning, warning jolt, and/or brake engagement (MQB/MEB)

All part and service references provided in this TSB (**2058077**) 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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