

57 Front or rear door lock is not locking, w/o function and/or fault messages in DIS, DTC(s) B122D29, B14FF29 or B122B13

c 2063236/1 July 30, 2021.

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

### **Condition**

#### **Customer states:**

- Front and/or rear doors cannot be opened from the outside or the inside.
- Fault messages for the front and/or rear doors in driver information system (DIS) (e.g. for exit warning, central locking, child safety lock).
- The doors are locked but one of the doors can be opened without a key.

#### **Workshop findings:**

One or more of the following DTC(s) may be stored in the driver's door control module, J386 (address word 0042), passenger's door control module, J387 (address word 0052), rear driver side door control module, J926 (address word 00BB) or rear passenger side door control module, J927 (address word 00BC):

#### Driver's door control module, J386 (address word 0042):

- DTC B122D29 (Lock unit for central locking Implausible signal).
- DTC B122B13 (Central locking motors Open circuit).

#### Passenger's door control module, J387 (address word 0052):

- DTC B122D29 (Lock unit for central locking Implausible signal).
- DTC B122B13 (Central locking motors Open circuit).

#### Rear driver side door control module, J926 (address word 00BB):



- DTC B122D29 (Lock unit for central locking Implausible signal).
- DTC B14FF29 (Child safety lock motor Implausible signal).
- DTC B122B13 (Central locking motors Open circuit).

#### Rear passenger side door control module, J927 (address word 00BC):

- DTC B122D29 (Lock unit for central locking Implausible signal).
- DTC B14FF29 (Child safety lock motor Implausible signal).
- DTC B122B13 (Central locking motors Open circuit).

### **Technical Background**

The Audi A8 (D5) is equipped with fully electric door locks (aka "e-lock"). The micro switches are located at the inner and outer door handles. The Audi A6/A7 (C8), Q8, and Audi e-tron models are equipped with semi-electric door locks. The micro switches are integrated in the door locks and not located at the door handles.

The main difference between fully and semi-electric door locks is the location of the micro switches.

The request to open the door from the inner or outer door handle is transmitted electrically from the respective micro switch to the door control module. The door control module triggers an electric motor within the door lock, which releases the rotary latch, opening the lock. The door can be opened with very little effort.

In addition, two Bowden cables are used to provide a mechanical connection between the door lock and the inner/outer door handles. To open the door mechanically from the inside (in the event of an electrical malfunction), the inner door handle must be pulled twice past the normal angle of operation. Opening the door mechanically from the outside handle is only possible, after the door lock cylinder or the inner door handle were operated.

### **Production Solution**

Not applicable.



### Service

**Tip:** For customer concerns described in this TSB, **do not replace** the door lock immediately! Follow the diagnostic tree starting at the top to determine the root cause (Figure 1).

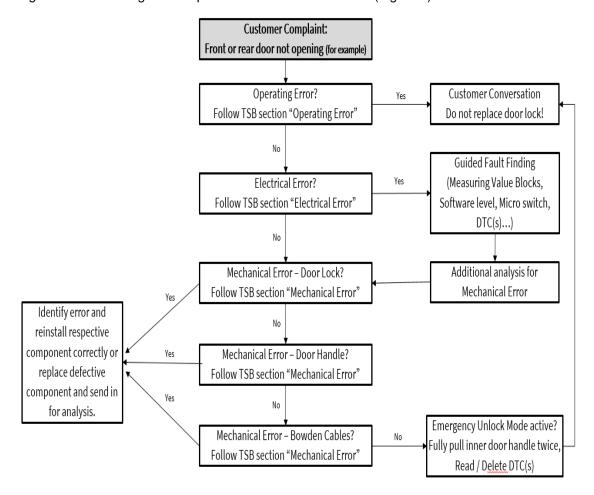


Figure 1. Follow diagnostic tree starting at the top.

### **Operating Error:**

- 1. Determine if the concern is caused by incorrect operation.
- 2. Explain the functions of the electric door lock to the customer with reference to the Owner's Manual: The following questions are helpful to determine if incorrect operation is causing the concern:
  - Does the concern occur when the ignition is on or off (did the bus go to sleep when opening the door)?



- Is the inner door handle pulled too quickly or pulled all the way to the stop?
- Does the door open if you pull the inner door handle twice? Afterward, can you open the door with the outer door handle?
- · How does the vehicle behave compared to a similar vehicle?
- 3. The corresponding information in the Owner's Manual, Repair Manual, in Guided Fault Finding and in TSB(s) should also be considered.

#### **Electrical Error**

#### A6, A7, A8, and Q8:

1. Follow TSB 2055932: *57 Central locking/parking brake warning, alarm or exterior mirror issues, DTCs B122D29, B14FF29 or U122800 stored* to ensure that the door control modules are at the latest software level and update them if necessary.

#### Audi e-tron quattro and Audi e-tron Sportback:

 Follow TSB 2055933: 57 Exit warning message with various central locking & alarm issues, DTCs B122D29, U122800, and/or B14FF29 stored to ensure that the door control modules are at the latest software level and update them if necessary.

#### All models:

- 2. Interrogate the door control module fault memory of any affected door(s).
- 3. Delete fault memory if any DTC(s) are stored. Perform ignition cycle. Open and close the affected door(s).
- 4. Re-check fault memory of affected door control module(s).
- 5. If the DTC(s) do not return and the door(s) can be opened/closed as designed the door lock is electrically OK. Follow the section "Mechanical Error" in this TSB and continue to observe for new DTC entries.
- 6. If the DTC(s) cannot be deleted or return, observe the following measuring value blocks for plausible conditions while opening/closing the door(s):

Measured Value Name	Da0042	Da0052	Da00BB	Da00BC
Door Status (Open/Closed, Locked/Unlocked, Emergency Unlock Mode)	IDE0572 0	IDE0572 7	IDE0572 2	IDE0572 9
Central Locking Button		IDE04213		
Rotary Latch Status		IDE02589		
Status Door Lock		MAS06256		



Switch For Inside Door Handle	MAS02099	
Switch For Outside Door Handle	MAS02100	

7. If any of the measuring value blocks are implausible, measure the resistance directly using the multimeter function of the VAS tester:

#### A6, A7, Q8, Audi e-tron quattro, and Audi e-tron Sportback (models with semi-electric door lock):

• At PIN #2 and PIN #4 of the door lock (ohms reading of emergency unlock switch, inner and outer door handle switches connected in parallel)

### A8 (models with electric door lock):

- At PIN #2 and PIN #4 of the door lock (ohms reading of emergency unlock switch)
- At inner and outer door handles (ohms reading of inner or outer door handle switches)
- 8. Compare readings with the specifications in the table below:

Component Active/Operated	Resistance in ohms
Emergency unlock switch	1000
Inner door handle switch	620
Outer door handle switch	270
Emergency unlock switch & inner door handle switch (semi-electric lock)	382
Emergency unlock switch & outer door handle switch (semi-electric lock)	212
Emergency unlock switch & inner door handle switch & outer door handle switch (semi-electric lock)	158

- 9. Readings of 1,000, 382, 212 and 158 ohms indicate that the emergency unlock function is active and that the door lock can only be released mechanically. In this case, pull the inner door handle twice to its stop. Then close the door, open it again and repeat the measurement. It should now read OL (overload) if the inner and/or outer door handles are not operated.
- 10. If the measurements are according to specifications, do not replace the door lock as it is not the root cause of the customer's concern.
- 11. Visually and electrically check the PINs at the door lock and the door control module and the connecting wiring.



12. Check the wiring and connections at the door coupling points at the A-pillar and B-pillar.

#### Mechanical Error:

- 1. Inspect the Bowden cables, especially the connections at the door lock and the inner and outer door handles for any issues (twisting, loose connection, routing, damage, traces of water/ice, stiffness, etc.).
- 2. Replace any defective components as necessary.
- 3. Check if the outer door handles return flush to the zero/rest position.
- 4. If they do not, follow TSB 2060196: *57 Exterior door handles do not return to the zero position* to modify the outer door handles as necessary.
- 5. Check if the doors open/close freely and latch/unlatch smoothly.
- 6. Adjust the striker plate, door alignment, and/or door hinges as necessary.

**Tip:** Parts replacement, without following this TSB, does not resolve this issue. Claims for replaced parts will be subject to review.

### **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:	• 5717 Door lock front.		
	5719 Cable front.	• 5719 Cable front.	
	5817 Door lock rear.		
	• 5819 Cable rear.		
	9732 Door wiring harness.		
Damage Code:	• 0010		
	Or		
	• 0040		
Labor Operations:	Door lock front remove + reinstall	5717 195X	See SRT with associated operations



	Door lock rear remove + reinstall	5817 195X	See SRT with associated operations
	Cable front remove + reinstall	5719 1950	See SRT with associated operations
	Cable rear remove + reinstall	5819 1950	See SRT with associated operations
	Door wiring harness front or rear remove + reinstall	9732 XXXX	See SRT with associated operations
Diagnostic Time:	GFF	0150 0000	Time stated on the diagnostic protocol (Max 30 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 #2063236/1		

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**

Tool Number	Tool Description
VAS 6160/VAS 6150	VAS tester with the current version of ODIS (Windows 10)
VAG1594D	Auxiliary Measuring Set
VAS 1978/35-22	Tool for primary locking
VAS 1978/35-2	Tool for secondary locking



### **Additional Information**

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

- Owner's Manual: Chapter "Opening and closing".
- SSP 970293: The 2019 A8 Electrical and Electronic Systems.
- SSP 990493: The 2019 A8 Introduction.
- SSP 990393: The 2019 A8 Driver Assistance Systems.

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

- TSB 2055932, 57 Central locking/parking brake warning, alarm or exterior mirror issues, DTCs B122D29, B14FF29 or U122800 stored.
- TSB 2055933, 57 Exit warning message with various central locking & alarm issues, DTCs B122D29, U122800, and/or B14FF29 stored.
- TSB 2060196, 57 Exterior door handles do not return to the zero position.
- TSB 2011732, 00 Software Version Management (SVM), operating instructions.

All part and service references provided in this TSB (2063236) 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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