

Audi A4 1995 ➤

Body Self-diagnosis

Edition 03.1998



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List of Workshop Manual Repair GroupsList of Workshop Manual Repair Groups

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Body Self-diagnosis

Repair Group

01 - Self-diagnosis

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Technical information should always be available to the foremen and mechanics, because their careful and constant adherence to the instructions is essential to ensure vehicle road-worthiness and safety. In addition, the normal basic safety precautions for working on motor vehicles must, as a matter of course, be observed.

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01 - Self-diagnosis

1 - Connect fault reader V.A.G 1551

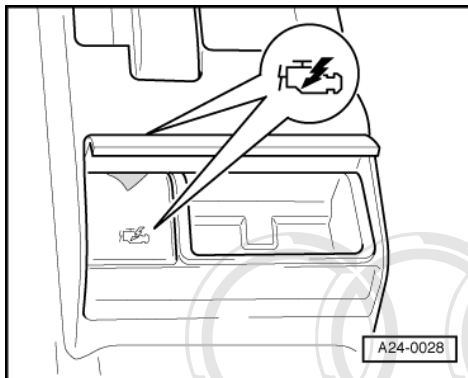
1.1 - Connect fault reader V.A.G 1551

Note:

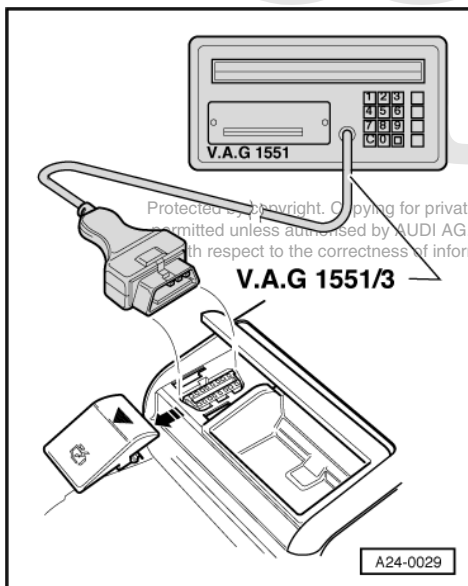
The vehicle system tester V.A.G 1552 can be used instead of the fault reader V.A.G 1551, however a printout is not possible.

Test conditions

- Battery voltage at least 11 V
- Earth connections on engine and gearbox OK.
- Fuse OK.



- -> Open rear ashtray and remove cover for diagnostic connector.



- -> Connect fault reader V.A.G 1551 or vehicle system tester V.A.G 1552 with cable V.A.G 1551/3.

-> Indicated on display:



V.A.G SELF-DIAGNOSIS HELP
1 - Rapid data transfer 1)
2 - Flash code output 1)

1) appears alternately

-> If the display shows one of the messages, run through the fault finding procedure as described in the diagnosis management fault finding program.

Rapid data transfer HELP
No reply from control unit

=> Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder

Rapid data transfer HELP
Communication problem

=>

Rapid data transfer HELP
K wire not switching to earth

Rapid data transfer HELP
K wire not switched to positive

Note:

If the display remains blank:

=> Fault reader operating instructions

- Switch on printer by pressing PRINT key (indicator lamp in key lights up).
- Press key 1 for "Rapid data transfer".

-> Indicated on display:

Rapid data transfer HELP
Enter address word XX

Note:

Address word 00 is used to carry out the automatic test sequence, i.e. interrogation of the fault memory via rapid data transfer for all vehicle systems with self-diagnosis capability.

2 - Self-diagnosis of airbag system BTU (Basic Triggering Unit) with and without side airbag

2.1 - Self-diagnosis of airbag system BTU (Basic Triggering Unit) with and without side airbag

2.2 - General notes

Vehicles ä 1997:

The airbag system contains: Driver's airbag, passenger's airbag, and 2 front belt tensioners. In a crash situation, these are actuated centrally by the airbag control unit (J234) when certain specified triggering criteria are exceeded.

Vehicles 1997 ä up to vehicles ä1999: Chassis no. 8D XA 200 000:

The airbag system contains: Driver's airbag, front passenger's airbag, two side airbags at the front, two front belt tensioners and either 2 or 3 rear belt tensioners (1998 ä). In a crash situation, these are actuated centrally by the airbag control unit (J234) when certain specified triggering criteria are exceeded.

Self-diagnosis can be used to block or activate the passenger's airbag => Page **27**.

Vehicles 1999 ä: from chassis no. 8D XA 200 001 onwards

The airbag system contains: Driver's airbag, passenger's airbag, two front belt tensioners, two side airbags at the front and either 2 or 3 rear belt tensioners, head airbag, key switch deactivating passenger's airbag. In a crash situation, these are actuated centrally by the airbag control unit (J234) when certain specified triggering criteria are exceeded.

In addition to using the airbag key switch it is also possible to block or activate the passenger airbag via the function "adaption" => Page **27**.

In a crash situation the airbag control unit sends a "Crash signal" to the central locking control unit. This function is a passive safety feature. When the airbag and/or the belt tensioner are triggered it uses the central locking to release the door locks and tailgate lock and blocks the interior switch. The interior light is also switched on. The "Crash-Signal" must be checked using final control diagnosis => Page **18**.

If an airbag and/or belt tensioner is triggered, the control unit will record the fault "Crash data stored".

In such cases the control unit for the airbag (J234) must be renewed after

- ◆ the 1st triggering of driver's or passenger's airbag,
- ◆ the 3rd triggering of the front belt tensioners and/or side airbags.

After the 3rd triggering it is not possible to erase the crash signal with the fault reader V.A.G 1551 up to ä10.98 in vehicles with airbag 8.

All vehicles:

The control unit detects faults in the airbag system and stores them in a permanent memory.

After the ignition is switched on, the airbag warning lamp (K75) comes on for about 4 seconds and then goes out again. If the lamp then flashes for a further 12 seconds, this indicates that the passenger's airbag has been deactivated (vehicles 1997 only ä).

- ◆ If the warning lamp (K75) does not go out after about 4 seconds, this means that there is a fault in the voltage supply for the airbag control unit (J234). Interrogate fault memory => Page **5**.
- ◆ If the warning lamp (K75) goes out and comes on again, this indicates either that the control unit has not been encoded, that the wrong control unit has been fitted, or that a fault has occurred. Interrogate fault memory => Page **5**.

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 Wiring must only be checked by visual inspection.
 Never use electrical tests to check or measure continuity in the igniter circuits.
 Always switch off ignition before inspecting wiring.

2.3 - Initiating self-diagnosis of airbag system

Test requirements:

- ◆ Voltage supply and fuses for the relevant systems OK.

=> Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder



- ♦ Connect fault reader V.A.G 1551
=> Page 1.
- ♦ Switch ignition on.

Notes:

- ♦ Only short-term faults are shown as "sporadically occurring faults" and marked with "/SP" on the display.
 - ♦ In order to eliminate such sporadically occurring faults the fault memory must be erased before repair.
 - ♦ Additional operating instructions can be called up with the fault reader HELP key.
 - ♦ The ➡ key is used for the continuation of the program sequence.
- Switch on printer with the Print key (indicator lamp in key lights up).
 - Press key 1 for "Rapid data transfer".

-> Indicated on display:

Rapid data transfer	HELP
Enter address word XX	

Address word for airbag system: 15

- Press keys -1- and -5-.

-> Indicated on display:

Rapid data transfer	Q
15 - Airbag	

- Confirm input with Q key.

-> Indicated on display:

Rapid data transfer	HELP
Tester sends address word 15	

Vehicles ä 1997:

-> After about 5 seconds, the following appears on the display:

8A0959655D	Airbag V AUDI	D02
Code 00766	WSC 06812	

Vehicles 1997 ä up to vehicles ä 1999: Chassis No. 8D XA 200 000:

-> After about 5 seconds, the following appears on the display:

8D0959655C	Airbag 7	AUDI D00
Code 00102	WSC 06812	

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Vehicles 1999 ä: from chassis no. 8D XA 200 001 onwards

8D0959655J	Airbag front + side	0004
Code 01106	WSC 06812	

-> After approx. 5 seconds the display indicates:
Airbag front + side or airbag front + head

All vehicles:

- Continue through program procedure using the ➡-key.

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

Note:

A list of the possible functions is printed out after pressing the HELP key:

Self-diagnosis functions

The following functions are possible:

- 01 - Interrogating control unit version => Page 17 .
- 02 - Interrogating fault memory => Page 5 .
- 03 - Final control diagnosis=> Page 18 .
- 05 - Erasing fault memory => Page 60 .
- 06 - End output => Page 61 .
- 07 - Coding control unit => Page 20 .
- 08 - Reading measured value block => Page 22 .
- 10 - Adaption=> Page 27 .

Note:

Functions 03 and 10 are only possible in vehicles 1997 ▶.

2.4 - Interrogating fault memory

Note:

The displayed fault information is not constantly updated but only when initiating self-diagnosis or with function 05 "Erase fault memory".

- Switch on printer with the Print key (indicator lamp in key lights up).

Performing function 02- "Interrogating fault memory"

-> Indicated on display:

Rapid data transfer HELP
 Select function XX

- Press keys -0- and -2-.

-> Indicated on display:

Rapid data transfer Q
 02 - Interrogate fault memory

- Confirm input with Q key.

-> The number of faults stored appears on the display.

X fault recognised

-> If the message "No fault recognised" is displayed, the program returns to its start position when pressing the key.

No fault recognised

-> Indicated on display:

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Rapid data transfer HELP
Select function XX

If something else is displayed:

=> Fault reader operating instructions

- Erase fault memory (function 05)
=> Page 60.
- End output (function 06) => Page 61
- Unplug diagnostic connector.

2.5 - Fault table for BTU airbag system

Notes:

- ♦ The following table lists all the faults that can be detected by the airbag control unit -J234 and printed out according to fault ident. No. Present faults with 5-digit number fault number are printed out only with the printer of V.A.G 1551 switched on.
- ♦ If a fault is continually present the fault lamp for the airbag system lights up until the fault is rectified and the fault memory is erased.
- ♦ If a fault occurs only occasionally or if the fault memory is not erased after the fault remedy has been carried out, the fault will appear on the display as a "sporadically occurring fault" (SP). On the right side of the display of the V.A.G 1551 a "/SP" appears and the fault light remains on.
- ♦ If defective components were detected also check wiring to the components for short and open circuits according to the current flow diagram.
- ♦ The 3-digit fault type number appearing next to the fault code is a data code which can be ignored.

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
00532 Voltage supply too low	- Battery discharged/defective - Short-circuit in vehicle electrical system	- Charge/replace battery. - Rectify short circuit in electrical system
00588 Igniter for airbag, driver's side -N95 resistance value too high	- Open circuit - Coil spring defective - Driver airbag unit defective - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Testing coil spring - Replace airbag unit, driver's side - Replace control unit for airbag -J234.
00588 Igniter for airbag, driver's side -N95 resistance value too low	- Wiring short - Coil spring defective - Driver airbag unit defective - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Testing coil spring - Replace airbag unit, driver's side - Replace control unit for airbag -J234.

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V.A.G 1551 print-out	Possible causes of fault	Fault remedy
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00588 Igniter for airbag, driver's side -N95 short to positive	- Wiring damaged. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Replace control unit for airbag -J234.
00588 Igniter for airbag, driver's side -N95 short to earth	- Wiring damaged. - Driver airbag unit defective - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Replace airbag unit, driver's side Replace control unit for airbag -J234.
00589 Igniter 1 for airbag, passenger's side -N131 resistance value too high	- Open circuit - Side airbag unit, passenger's side defective - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Replace airbag unit, passenger's side Replace control unit for airbag -J234.

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
00589 Igniter 1 for airbag, passenger's side -N131 resistance value too low	- Wiring short - Side airbag unit, passenger's side defective - Control unit for airbag - J234 defective.	- Fault find. accord. to current flow diagr. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Replace airbag unit, passenger's side Replace control unit for airbag -J234.
00589 Igniter 1 for airbag, passenger's side -N131 short to positive	- Wiring damaged. - Control unit for airbag - J234 defective.	- Fault find. accord. to current flow diagr. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Replace control unit for airbag -J234.
00589 Igniter 1 for airbag, passenger's side -N131 short to earth	- Wiring damaged. - Side airbag unit, passenger's side defective - Control unit for airbag - J234 defective.	- Fault find. accord. to current flow diagr. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Replace airbag unit, passenger's side Replace control unit for airbag -J234.
00594		

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Airbag ignition circuits; Short to positive	- Lines damaged - Control unit for airbag - J234 defective.	- Fault find. accord. to current flow diagr. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace control unit for airbag -J234.
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V.A.G 1551 print-out	Possible causes of fault	Fault remedy
00594 Airbag ignition circuits; Short to earth	- Wiring damaged. - Coil spring defective - Airbag, driver's side defective - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Testing coil spring - Replace airbag unit, driver's side - Replace control unit for airbag -J234.
00595 Crash data stored	- Head-on collision - Side impact	- Replace control unit, airbag unit, belt tensioner unit and any damaged components.
00654 Igniter for belt tensioner, driver's side -N152 resistance value too high	- Open circuit - Open connection in wiring to driver belt tensioner - Belt tensioner igniter defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Close connection. - Replace belt tensioner, driver's side - Replace control unit for airbag -J234.

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
00654 Igniter for belt tensioner, driver's side -N153 resistance value too low	- Wiring short - Igniter for belt tensioner, driver's side defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace belt tensioner, driver's side - Replace control unit for airbag -J234.
00654 Igniter for belt tensioner, driver's side -N153 short to positive	- Wiring damaged. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace control unit for airbag -J234.
00654		

Igniter for belt tensioner, driver's side -N153 short to earth	- Wiring damaged. - Igniter for belt tensioner, driver's side defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace belt tensioner, driver's side - Replace control unit for airbag -J234.
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V.A.G 1551 print-out	Possible causes of fault	Fault remedy
00655 Igniter for belt tensioner, passenger's side -N154 resistance value too high	- Open circuit - Open connection in line to belt tensioner, passenger's side. - Belt tensioner igniter defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Close connection - Replace belt tensioner, passenger's side. - Replace control unit for airbag -J234.
00655 Igniter for belt tensioner, passenger's side -N154 resistance value too low	- Wiring short - Igniter for belt tensioner, passenger's side defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace belt tensioner, passenger's side. - Replace control unit for airbag -J234.
00655 Igniter for belt tensioner, passenger's side -N154 short circuit to positive terminal	- Wiring damaged. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace control unit for airbag -J234.

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
00655 Igniter for belt tensioner, passenger's side -N154 short circuit to earth	- Wiring damaged. - Igniter for belt tensioner, passenger's side defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace belt tensioner, passenger's side. - Replace control unit for airbag -J234.
01044 Control unit incorrectly encoded	- Control unit not coded according to vehicle configuration.	- Encode control unit for airbag -J234 accordingly.



Vehicles ä 1997 only:

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01025 Warning lamp actuation defective Open circuit to earth	- Open circuit - Warning lamp defective. - Dash panel insert defective - Control unit for airbag -J234 defective.	- Fault find. accord. to current flow di- agr. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Rectify open circuit. - Replace warning lamp. - Repair dash panel insert. - Replace control unit for airbag -J234.
01025 Warning lamp actuation defective Short to earth	- Wiring damaged. - Warning lamp defective. - Dash panel insert defective - Control unit for airbag -J234 de- fective.	- Fault find. accord. to current flow di- agr. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace warning lamp. - Repair dash panel insert. - Replace control unit for airbag -J234.
01025 Warning lamp actuation defective Short to positive	- Wiring damaged. - Control unit for airbag -J234 de- fective.	- Fault find. accord. to current flow di- agr. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace control unit for airbag -J234.

Vehicles 1997 ä only:

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01211 Igniter for belt tensioner behind driver's seat -N196 resistance value too high	- Wiring damaged. - Igniter for belt tensioner - N196 defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Repl. igniter for belt tensioner -N196. - Replace control unit for airbag -J234.
01211 Igniter for belt tensioner behind driver's seat -N196 resistance value too low	- Wiring damaged. - Igniter for belt tensioner - N196 defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Repl. igniter for belt tensioner -N196. - Replace control unit for airbag -J234.
01211		

Igniter for belt tensioner behind driver's seat -N196 short circuit to positive terminal	- Wiring damaged. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Replace control unit for airbag -J234.
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V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01211 Igniter for belt tensioner behind driver's seat -N196 short circuit to earth	- Wiring damaged. - Igniter for belt tensioner - N196 defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Repl. igniter for belt tensioner -N196. Replace control unit for airbag -J234.
01211 Igniter for belt tensioner behind driver's seat -N196 open circuit	- Wiring damaged. - Igniter for belt tensioner - N196 defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Repl. igniter for belt tensioner -N196. Replace control unit for airbag -J234.
01212 Igniter for belt tensioner behind passenger's seat -N197 resistance value too high	- Wiring damaged. - Igniter for belt tensioner - N197 defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Replace igniter for belt tensioner -N197. Replace control unit for airbag -J234.

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01212 Igniter for belt tensioner behind passenger's seat -N197 resistance value too low	- Wiring damaged. - Igniter for belt tensioner - N197 defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Replace igniter for belt tensioner -N197. Replace control unit for airbag -J234.
01212 Igniter for belt tensioner behind passenger's seat -N197 short circuit to positive circuit	- Wiring damaged. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Replace control unit for airbag -J234.
01212		



Igniter for belt tensioner behind passenger's seat -N197 short circuit to earth	- Wiring damaged. - Igniter for belt tensioner - N197 defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace igniter for belt tensioner -N197. - Replace control unit for airbag -J234.
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V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01212 Igniter for belt tensioner behind passenger's seat -N197 open circuit	- Wiring damaged. - Igniter for belt tensioner - N197 defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace igniter for belt tensioner -N197. - Replace control unit for airbag -J234.
01213 Igniter for rear belt tensioner, centre -N198 Resistance value too great	- Wiring damaged. - Igniter for belt tensioner - N198 defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace igniter for belt tensioner -N198. - Replace control unit for airbag -J234.
01213 Igniter for rear belt tensioner, centre -N198 Resistance value too low	- Wiring damaged. - Igniter for belt tensioner - N198 defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace igniter for belt tensioner -N198. - Replace control unit for airbag -J234.

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01213 Igniter for rear belt tensioner, centre -N198 Short circuit to positive	- Wiring damaged. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace control unit for airbag -J234.
01213 Igniter for rear belt tensioner, centre -N198 Short circuit to earth	- Wiring damaged. - Igniter for belt tensioner - N198 defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace igniter for belt tensioner -N198. - Replace control unit for airbag -J234.

01213 Igniter for belt tensioner, centre -N198 Open circuit	- Wiring damaged. - Igniter for belt tensioner - N198 defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace igniter for belt tensioner -N198. - Replace control unit for airbag -J234.
--	--	---

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01217 Igniter for side airbag, driver's side -N199 resistance value too high	- Open circuit - Side airbag unit, driver's side defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace side airbag driver's side. - Replace control unit for airbag -J234.
01217 Igniter for side airbag, driver's side -N199 resistance value too low	- Wiring short - Side airbag unit, driver's side defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace side airbag driver's side. - Replace control unit for airbag -J234.
01217 Igniter for side airbag, driver's side -N199 short to positive	- Wiring damaged. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace control unit for airbag -J234.

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01217 Igniter for side airbag, driver's side -N199 short to earth	- Wiring damaged. - Side airbag unit, driver's side defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace side airbag driver's side. - Replace control unit for airbag -J234.
01218		



Igniter for passenger's side airbag -N200 resistance value too high	- Open circuit - Side airbag unit, passenger's side defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace airbag unit, passenger's side. - Replace control unit for airbag -J234.
01218 Igniter for passenger's side airbag -N200 resistance value too low	- Wiring short - Side airbag unit, passenger's side defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace airbag unit, passenger's side. - Replace control unit for airbag -J234.

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V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01218 Igniter for passenger's side airbag -N200 short circuit to positive terminal	- Wiring damaged. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace control unit for airbag -J234.
01218 Igniter for passenger's side airbag -N200 short circuit to earth	- Wiring damaged. - Side airbag unit, passenger's side defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace airbag unit, passenger's side. - Replace control unit for airbag -J234.

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01221 Crash sensor for driver's side airbag (lateral acceleration sensor) -G179 open circuit	- Open circuit - Connector in wiring to crash sensor driver's side is open. - Crash sensor defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Close connection. - Replace crash sensor -G179. - Replace control unit for airbag -J234.
01221 Crash sensor for driver's side airbag (lateral acceleration sensor) -G179 short circuit	- Short in wiring to positive or earth. - Crash sensor defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace crash sensor -G179. - Replace control unit for airbag -J234.
01221		

Crash sensor for driver's side airbag (lateral acceleration sensor) -G179 not authorised.	- Control unit for airbag - J234 wrongly encoded. - Control unit and crash sensor do not match.	- Replace control unit for airbag -J234. Replace crash sensor -G179.
---	--	---

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01222 Crash sensor, passenger's side airbag (lateral acceleration sensor) -G180 open circuit	- Open circuit - Connector in wiring to crash sensor passenger side is open. - Crash sensor defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Close connection. Replace crash sensor -G180. Replace control unit for airbag -J234.
01222 Crash sensor, passenger's side airbag (lateral acceleration sensor) -G180 short circuit	- Short in wiring to positive or earth. - Crash sensor defective. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Replace crash sensor -G180. Replace control unit for airbag -J234.
01222 Crash sensor, passenger's side airbag (lateral acceleration sensor) -G180 not authorised	- Control unit for airbag - J234 wrongly encoded. - Control unit and crash sensor do not match.	- Replace control unit for airbag -J234. Replace crash sensor -G180.

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01223 Signal: Open central locking system	- Control unit for airbag -J234 defective.	- Replace control unit for airbag - J234.
01228 Key sw. Switch off airbag, BTU -E224. Open circuit. Short to positive	- Open circuit - Key switch -E224 defective. - Control unit for airbag -J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Replace key switch -E224. Replace control unit for airbag - J234.
01228 Key sw. Switch off airbag, BTU -E224. Short to earth	- Wiring damaged. - Key switch -E224 defective. - Control unit for airbag -J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Replace key switch -E224. Replace control unit for airbag - J234.

All vehicles:

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01280 1)		



Passenger airbag deactivated	- Passenger's airbag has been deactivated via adaption.	- Adapt control unit for airbag -J234 accordingly.
01578 Warning lamp for passenger's airbag -K 145 short circuit to positive terminal	- Wiring damaged. - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Replace control unit for airbag -J234.
01578 Warning lamp for passenger's airbag -K 145 open circuit / short circuit to earth	- Wiring damaged. - Warning lamp for passenger airbag -K145 defective - Control unit for airbag - J234 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Replace warning lamp for passenger airbag Replace control unit for airbag -J234.

1) Only airbag 7 (07.96 ä) and airbag 8. Fault message is only stored with appropriate adaption "passenger's airbag blocked".

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V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01588 Igniter for head airbag, driver's side -N251 resistance value too high	- Open circuit - Head airbag driver's side defective. - Airbag control unit defective.	- Rectify open circuit in wiring Replace head airbag unit (driver's side). Replace airbag control unit.
01588 Igniter for head airbag, driver's side -N251 resistance value too low	- Wiring short - Head airbag driver's side defective. - Airbag control unit defective.	- Remedy wiring short. Replace head airbag unit (driver's side). Replace airbag control unit.

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01588 Igniter for head airbag, driver's side -N251 short to positive	- Wiring damaged. - Airbag control unit defective.	- Rectify wiring damage Replace airbag control unit.
01588 Igniter for head airbag, driver's side -N251 short to earth	- Wiring damaged. - Head airbag driver's side defective. - Airbag control unit defective.	- Rectify wiring damage Replace head airbag unit (driver's side). Replace airbag control unit.
01589 Igniter for head airbag, passenger's side -N252 resistance value too high	- Open circuit - Head airbag unit (passenger's side) defective. - Airbag control unit defective.	- Rectify open circuit in wiring Replace head airbag unit (passenger's side). Replace airbag control unit.
01589 Igniter for head airbag, passenger's side -N252 resistance value too low	- Wiring short - Head airbag unit (passenger's side) defective. - Airbag control unit defective.	- Remedy wiring short. Replace head airbag unit (passenger's side). Replace airbag control unit.

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01589 Igniter for head airbag, passenger's side -N252 short to positive	- Wiring damaged. - Airbag control unit defective.	- Rectify wiring damage Replace airbag control unit.
01589 Igniter for head airbag, passenger's side -N252 short to earth	- Wiring damaged. - Head airbag unit (passenger's side) defective. - Airbag control unit defective.	- Rectify wiring damage Replace head airbag unit (passenger's side). Replace airbag control unit.
65535 Control unit defective		- Replace control unit for airbag -J234.

Note:

The fault "65535 Control unit defective" cannot be erased with fault reader V.A.G 1551!

2.6 - Interrogating airbag control unit version

- Press keys -0- and -1-.

-> Indicated on display:

Rapid data transfer Q
01 - Interrogate control unit version

- Confirm input with Q key.

Vehicles ä 1997:

-> After about 5 seconds, the following appears on the display:

8A0959655D Airbag V AUDI D02
Code 00766 WSC 06812

Explanation of the display

- ♦ 8A0959655D: Part number of airbag control unit
- ♦ Airbag V AUDI: Component designation for airbag BTU (Basic Triggering Unit)
- ♦ D02: Software version of control unit for airbag in Audi models
- ♦ Code 00766: Coding of airbag control unit. Coding table => Page 21
- ♦ WSC 06812: Workshop code

- The => key is used to return to the basic function.

-> Indicated on display:

Rapid data transfer HELP
Select function XX

Vehicles 1997 ä up to vehicles ä1999: Chassis no. 8D XA 200 000:

-> After about 5 seconds, the following appears on the display:

8D0959655C Airbag 7 AUDI D00
Code 00102 WSC 06812

Explanation of the display

- ♦ 8D0959655A: Part no. for control unit (front airbag)
- ♦ 8D0959655C: Part no. of airbag control unit (Front and side airbags)
- ♦ 8D0959655L: Part no. of airbag control unit (Front and side airbags)
- ♦ Airbag 7: Component designation for airbag BTU (Basic Triggering Unit)
- ♦ AUDI D00: Software version of control unit for Audi vehicles (control unit ident no. may also have four digits).



- ♦ Code 00102: Coding of airbag control unit. Coding table => Page 21
- ♦ WSC 06812: Workshop code

- The ⇒ key is used to return to the basic function.

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

Vehicles 1999 ä: from chassis no. 8D XA 200 001 onwards

8D0959655J	Airbag front + side	D004
Code 01106	WSC 06812	

-> After about 5 seconds, the following appears on the display:

Explanation of the display

- ♦ 8D0959655J: Part no. of airbag control unit (Front and side airbags)
- ♦ 8D0959655F: Part no. of airbag control unit (Front and head airbags)
- ♦ Airbag 7: Component designation for airbag BTU (Basic Triggering Unit)

Note:

For vehicles with airbag 8 the display shows Airbag front + side or Airbag Front + head instead of Airbag V, Airbag 7.

- ♦ D004: Software version of control unit for airbag in Audi models
- ♦ Code 01106: Coding of airbag control unit. Coding table => Page 21
- ♦ WSC 06812: Workshop code

- The ⇒ key is used to return to the basic function.

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

2.7 - Final control diagnosis (Vehicles > 1997 only) up to CW 18.99.

The final control diagnosis checks the function of the crash output. When the airbags are triggered, the central locking system switches immediately to UNLOCK and the internal central locking switch is disabled. The hazard warning lights and the interior lights are switched on.

Note:

- ♦ Before carrying out the final control diagnosis the central locking must be switched to "locked" (use internal switch).
- ♦ Switch interior light switch to position "door contact".
- ♦ After the Final Control Diagnosis has been completed, the central locking controls are not active until fault memory of CL control unit has been erased.

Performing function "03 - final control diagnosis"

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-> Indicated on display

Rapid data transfer	HELP
Select function XX	

- Press keys 0 and 3 for the function "Final control diagnosis" and confirm entry with Q key.

-> Indicated on display

Final control diagnosis
 Signal: Open central locking system

Central locking must switch to "open".

The hazard warning lights and interior lights come on.

- Press the internal switch. The central locking system must not switch back to "lock".

Notes:

After this step has been performed, fault code 01366 will be stored in the CL control unit.

After completing the final control diagnosis the fault memory of the CL control unit must be read and this fault must be erased => Page 32.

-> Indicated on display

Final control diagnosis
 End

- Press =>key.

-> Indicated on display

Rapid data transfer HELP
 Select function XX

2.8 - Final control diagnosis as of week 18.99.

The final control diagnosis checks the function of the crash output. When the airbags are triggered, the central locking system switches immediately to UNLOCK, the internal central locking switch is disabled, and the fuel supply is interrupted. The hazard warning lights and the interior lights are switched on.

Notes:

- ♦ Before carrying out the final control diagnosis, the central locking system must be switched to "close" (press the internal switch) and the engine started.
- ♦ Switch interior light switch to position "door contact".
- ♦ After the Final Control Diagnosis, the central locking controls are not active until the fault memory of CL control unit has been erased.

Performing function "03 - final control diagnosis"

-> Indicated on display:

Rapid data transfer HELP
 Select function XX

- Press keys -0- and -3-.

-> Indicated on display:

Rapid data transfer Q
 03 - Final control diagnosis

- Confirm input with Q key.

-> Indicated on display:

Final control diagnosis
 Signal: Open central locking system

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The engine must switch off.

Central locking must switch to "open".

The hazard warning lights and interior lights come on.

- Press the internal switch. The central locking system must not switch back to "lock".

Notes:

After this step has been performed, fault code 01366 will be stored in the CL control unit.

After completing the final control diagnosis the fault memory of the CL control unit must be read and this fault must be erased => Page 32.

After this step has been performed, several faults will be stored in the fault memory of the engine control unit.

After completing the final control diagnosis the fault memory of the engine control unit must be read and this fault must be erased. Refer to ignition and injection in the Workshop Manual in Repair Group: 01 Self-diagnosis; erasing and interrogating fault memory.

According to engine type, the fuel supply shuts off as of week 18.99 onwards.

If the engine does not start, check whether the fuel supply shut off in the engine has been activated.

=> Current flow diagrams binder

If the engine does not start and the fuel supply shut off in the engine has been activated, check wiring to the engine.

=> Current flow diagrams binder

-> Indicated on display:

Final control diagnosis
End

- Press =>key.

-> Indicated on display:

Rapid data transfer HELP
Select function XX

2.9 - Encoding airbag control unit

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Notes:

- ♦ Control unit is not factory-coded.
- ♦ The airbag fault light always lights up when the control unit is not encoded.
- ♦ Encoding is carried out with fault reader V.A.G 1551.

If the appropriate encoding is not displayed at the V.A.G 1551 or the control unit has been replaced the encoding of the control unit is carried out as follows:

Performing function "07 - Code control unit"

-> Indicated on display:

Rapid data transfer HELP
Select function XX

- Press keys -0- and -7-.

-> Indicated on display:

Rapid data transfer Q
 07 - Encoding control unit

- Confirm input with Q key.

-> Indicated on display:

Encoding control unit
 Enter code number XXXXX (0-32000)

- Enter encoding for airbag control unit via the keypad:

Vehicles ä 1997:

Coding table for the airbag control unit

System version	Coding
Driver's airbag active both belt tensioners active	00766
Driver and front passenger's airbag active both belt tensioners active	01022

Vehicles 1997 ä up to vehicles ä1999: Chassis no. 8D XA 200 000:

Coding table for the airbag control unit

System variant	Coding
Vehicles with front airbags, front side airbags and front belt tensioners	00102
Vehicles with front airbags, front side airbags, front belt tensioners and 2 rear belt tensioners	00104
Vehicles with front airbags, front side airbags, front belt tensioners and 3 rear belt tensioners	00106
Vehicle with front airbags and front belt tensioners	00002
Vehicles with front airbags, front belt tensioners and 2 rear belt tensioners	00004
Vehicles with front airbags, front belt tensioners and 3 rear belt tensioners	00006

Vehicles 1999 ä: from chassis no. 8D XA 200 001 onwards

Coding table for the airbag control unit

Airbag system	Code number
Airbag 8 vehicles with front airbags, front side airbags, front belt tensioners, two rear belt tensioners	00104
Airbag 8 vehicles with front airbags, front side airbags, front belt tensioners, three rear belt tensioners	00106
Airbag 8 vehicles with front airbags, front side airbags, front belt tensioners, two rear belt tensioners, key switch to switch off Airbag BTU	01104
Airbag 8 vehicles with front airbags, front side airbags, front belt tensioners, three rear belt tensioners, key switch to switch off Airbag BTU	01106
Airbag 8 vehicles with front airbags, front side airbags, front seat belt tensioners, head airbag, two rear seat belt tensioners	00304



Airbag system	Code number
Airbag 8 vehicles with front airbags, front side airbags, front belt tensioners, head airbag, two rear seat belt tensioners	00306
Airbag 8 vehicles with front airbags, front side airbags, front seat belt tensioners, head airbag, two rear seat belt tensioners, key switch to switch off Airbag BTU	01304
Airbag 8 vehicles with front airbags, front side airbags, front belt tensioners, head airbag, three rear seat belt tensioners, key switch to switch off Airbag BTU	01306

All vehicles:

-> Indicated on display (e.g. 00102):

```
Code control unit      Q
Enter code number 00102    (0-32000)
```

- Confirm input with Q key.

```
8D0959655C    Airbag 7    AUDI D00
Code 00102    WSC 06812
```

-> The display shows the control unit identification with the entered code (e.g. 00102).

Note for airbag 7:

Encoding 00102, 00104 and 00106 can only be carried out with the control unit number "8D0989655C" or "8D0959655L".

Explanation of display => Page 17

- Press =>key.

-> Indicated on display:

```
Rapid data transfer    HELP
Select function XX
```

- Pressing keys -0- and -6- completes the function.

-> Indicated on display:

```
Rapid data transfer    Q
06 - End output
```

- Confirm input with Q key.

-> Indicated on display:

```
Rapid data transfer    HELP
Enter address word XX
```

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2.10 - Reading measured value block**Note:**

The function "Read measured value block" reads the actual airbag system condition.

Performing function "08 - Read measured value block"

-> Indicated on display:

```
Rapid data transfer    HELP
Select function XX
```

- Press keys -0- and -8-.

-> Indicated on display:

Rapid data transfer Q
08 - Read measured value block

- Confirm input with Q key.

-> Indicated on display:

Reading measured value block
Enter display group number XXX

- Enter display group number 001 and confirm input with Q key.

The measured value block which has been selected will appear in standard format. Evaluation => Page **23**

2.11 - Summary of measured value blocks

Vehicles ä 1997:

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Measured value block 001

Indicated on display:	Display value	Designation
Read measured value block 1 1 2 3 4	1111 1)	1 = Airbag, driver's side
	1111 1)	2 = Airbag, passenger side
	1111 1)	3 = belt tensioner, driver's side
	1111 1)	4 = belt tensioner, passenger's side

1) Example.

Table of readouts

1111	Resistance OK
1011	Resistance too low
0111	Resistance too high
1101	Short to earth
1110	Short to positive

Possible causes of fault and fault remedy => from page **6** .

Vehicles 1997 ä up to vehicles ä1999: Chassis no. 8D XA 200 000:

Measured value block 001

Indicated on display:	Display value	Designation
Read measured value block 1 1 2 3 4	correct 1)	1 = Airbag, driver's side
	correct 1)	2 = Airbag, passenger side
	correct 1)	3 = Belt tensioner, driver's side
	correct 1)	4 = Belt tensioner, passenger's side

1) Example.

**Table of readouts**

correct	Resistance OK
too low	Resistance too low
too high	Resistance too high
to earth	Short to earth
to positive	Short to positive

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Possible causes of fault and fault remedy => from page 6

Measured value block 002

Indicated on display:	Display value	Designation
Read measured value block 2 1 2 3	correct 1)	1 = Rear belt tensioner, driver's side
	correct 1)	2 = Rear belt tensioner, passenger side
	correct 1)	3 = Rear belt tensioner, centre

1) Example.

Table of readouts

correct	Resistance OK
too low	Resistance too low
too high 2)	Resistance too high
to earth	Short to earth
to positive	Short to positive

2) Display also possible if no belt tensioner is present.

Possible causes of fault and fault remedy => from page 6 .

Measured value block 004

Indicated on display:	Display value	Designation
Read measured value block 4 1 2 3	Belt: yes 1)	1 = Rear seat belt check driver's side
	Belt: yes 1)	2 = Rear seat belt check passenger side
	Belt: yes 1)	3 = Rear seat belt check (centre)

1) Example.

Table of readouts

Belt: yes	
Belt: no	
correct	Resistance OK
too low	Resistance too low
too high	Resistance too high
to earth	Short to earth

to positive	Short to positive
-------------	-------------------

Possible causes of fault and fault remedy => from page 6 .

Measured value block 005

Indicated on display:	Display value	Designation
Read measured value block 5 1 2 3 4	correct 1)	1 = Igniter for front side airbag, driver' s side
	correct 1)	2 = Igniter for front side airbag, passenger's side
	correct 1)	3 = Igniter for rear side airbag, driver' s side
	correct 1)	4 = Igniter for rear side airbag, passenger's side

1) Example.

Table of readouts

correct	Resistance OK
too low	Resistance too low
too high 2)	Resistance too high
to earth	Short to earth
to positive	Short to positive

2) This readout will also appear even if no rear side airbags are fitted.

Possible causes of fault and fault remedy => from page 6 .

Vehicles 1999 ã from chassis no. 8D XA 200 001 onwards:

Measured value block 001

Indicated on display:	Display value	Designation
Read measured value block 1 1 2 3 4	correct 1)	1 = Airbag, driver's side
	correct 1)	2 = Airbag, passenger's side
	correct 1)	3 = Belt tensioner, driver's side
	correct 1)	4 = Belt tensioner, passenger's side

1) Example.

Table of readouts

correct	Resistance OK
too low	Resistance too low
too high	Resistance too high
to earth	Short to earth
to positive	Short to positive

Possible causes of fault and fault remedy => from page 6 .



Measured value block 002

Indicated on display:	Display value	Designation
Read measured value block 2 1 2 3 4	correct 1)	1 = Rear belt tensioner, driver's side
	correct 1)	2 = Rear belt tensioner, passenger's side
	correct 1)	3 = Rear belt tensioner, centre
	too high 1)	4 = Disregard display zone

1) Example.

Table of readouts

correct	Resistance OK
too low	Resistance too low
too high 2)	Resistance too high
to earth	Short to earth
to positive	Short to positive

2) Display also possible if no belt tensioner is present.

Possible causes of fault and fault remedy => from page 6 .

Measured value block 004

Indicated on display:	Display value	Designation
Read measured value block 4 1 2 3	Belt: yes 1)	1 = Rear seat belt check driver's side
	Belt: yes 1)	2 = Rear seat belt check passenger's side
	Belt: yes 1)	3 = Rear seat belt check (centre)

1) Example.

Table of readouts

Belt: yes	Resistance OK Resistance too low Resistance too high Short to earth Short to positive
Belt: no	
correct	
too low	
too high	
to earth	
to positive	

Possible causes of fault and fault remedy => from page 6 .

Measured value block 006

Indicated on display:	Display value	Designation
Read measured value block 6 1 2 3 4	correct 1)	1 = Igniter for front side airbag, driver's side
	correct 1)	2 = Igniter for front side airbag, passenger's side

Indicated on display:	Display value	Designation
	correct 1)	3 = Igniter for rear side airbag, driver' s side
	correct 1)	4 = Igniter for rear side airbag, passenger's side

1) Example.

Table of readouts

correct	Resistance OK
too low	Resistance too low
too high 2)	Resistance too high
to earth	Short to earth
to positive	Short to positive

2) This readout will also appear even if no rear side airbags are fitted.

Possible causes of fault and fault remedy => from page 6 .

Measured value block 008

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Indicated on display:	Display value	Designation
Read measured value block 8	correct 1)	1 = Igniter front side airbag, second stage, driver's side
1 2 3 4	correct 1)	2 = Igniter for front side airbag, passenger's side
	correct 1)	3 = Igniter for rear side airbag, driver' s side
	correct 1)	4 = Igniter for rear side airbag, passenger's side

1) Example.

Table of readouts

correct	Resistance OK
too low	Resistance too low
too high 2)	Resistance too high
to earth	Short to earth
to positive	Short to positive

2) This display is also possible if no second stage or head airbag is present.

Possible causes of fault and fault remedy => from page 6 .

2.12 - Adaption: Activating and deactivating passenger's airbag unit (vehicles 1997 only >)

With the function adaption the passenger airbag may be disabled and reactivated.

Performing function "10 - Adaption"

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	



- Press keys -0- and -5-.

-> Indicated on display:

Rapid data transfer Q
10 - Adaption

- Confirm input with Q key.

-> Indicated on display:

Adaption
Feed in channel No.

- Press keys -0- and -1-.

-> Indicated on display:

Adaption Q
Enter channel number 01

- Confirm input with Q key.

-> Indicated on display:

The display will show the current status of the passenger's airbag (e.g. disabled).

Channel 1 Adaption 1
Pass.-airbag disabled WSC 06812

Adaption 0: Passenger's airbag active
adaption 1: Passenger's airbag blocked

- Press =>key.

Deactivating passenger's airbag

Order a label with the registration card according to the individual components catalogue.

-> Indicated on display:

Channel 0 Adaption 1
Enter adaption value XXXXX

- Enter adaption value 00001.

-> Indicated on display:

Channel 1 Adaption 0 Q
Enter adaption value 00001

- Confirm input with Q key.

-> Indicated on display:

Channel 1 Adaption 1 Q
Pass.-airbag disabled WSC 06812

- Confirm input with Q key.

-> Indicated on display:

Channel 1 Adaption 1 Q
Store changed value?

- Confirm input with Q key.

-> Indicated on display:

Channel 1 Adaption 1
Changed value is stored

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- Press the ➔ key to terminate the adaption procedure.

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

- Switch ignition off.
- Unplug connectors for fault reader V.A.G 1551.
- Switch the ignition on.

The warning lamp (K75) initially illuminates for approx. 4 seconds and then flashes for a further 12 seconds. This indicates that the passenger airbag has been disabled. Customers should be made aware of the different warning lamp signal.

- Attach sticker (passenger airbag not activated) to lid of glove compartment).

The registration card enclosed with the sticker must be completed after deactivating the passenger side airbag unit and sent to the relevant sales centre or importer for registration. Disabling of the passenger airbag is to be confirmed by the workshop in the service schedule.

The second registration card must be carefully retained by the customer until the front passenger's module is reactivated (Vehicle valet).

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Activating passenger's airbag

-> Indicated on display:

Channel 1	Adaption 1
Enter adaption value XXXXX	

- Press key -0- five times.

-> Indicated on display:

Channel 1	Adaption 1	Q
Enter adaption value 00000		

- Confirm input with Q key.

-> Indicated on display:

Channel 1	Adaption 0	Q
Pass. airbag activated	WSC 06812	

- Confirm input with Q key.

-> Indicated on display:

Channel 1	Adaption 0	Q
Store changed value?		

- Confirm input with Q key.

-> Indicated on display:

Channel 1	Adaption 0
Changed value is stored	

- Press the ➔ key to terminate the adaption procedure.

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

- Remove label (passenger's airbag not functional) from lid of glove compartment.



The registration card supplied to the customer must be completed after activating the passenger side airbag unit and sent to the relevant sales centre or importer for registration. Activation of the passenger airbag unit by the workshop must be confirmed in the service schedule.

3 - Self-diagnosis of central locking system

3.1 - Self-diagnosis of central locking system

3.2 - General notes

The new generation of central locking systems have self-diagnosis capability. Easier fault finding is possible using the fault memory, the final control diagnosis and the measured value blocks. In addition, it is possible to code the relevant central locking version using fault reader V.A.G 1551.

Basically, the new central locking system facilitates the automatic open/close functions. With the automatic close function, all open windows and an open sun roof can be closed by holding the key in the close position until everything has closed. With the automatic open function, keep the key in the open position until the windows have opened. The automatic close function cannot be executed on the tailgate or boot lock.

The central locking has two pneumatic circuits. In central locking not equipped with remote control only the tank flap is connected to the first circuit and if radio remote control is fitted the driver door and the tank flap are connected to the first circuit. The remaining locking positions are connected to the second circuit.

If security central locking is fitted, unlocking the driver or front passenger door once opens only this door and the first pneumatic circuit. If a further unlock command occurs within 5 seconds, the second pneumatic control circuit is also activated and the entire vehicle opened.

If the tailgate lock cylinder is actuated only once, all doors remain locked. The tailgate or boot lid re-lock automatically after approx. 5 seconds.

The interior lighting is dimmed on or off within approx. 1.5 seconds.

The boot lighting is controlled by the central locking pump via the tailgate or boot lid contact switch. If the tailgate is open, the lighting is switched off if a speed of approx. 5 km/h is exceeded or after 10 minutes.

The new remote control system now operates as a radio remote control system. The receiver is integrated in the central locking pump on vehicles with radio remote control. The antenna for the radio remote control is integrated in the wiring loom.

If radio remote control is fitted, the "Comfort open" function only affects the windows. Press and hold the "Open Switch" to use this feature.

The "Comfort close" function can be used for the windows and the sunroof. Press and hold the "Close Switch" to use this feature.

The radio remote control central locking system re-locks automatically if the doors or tailgate/ boot lid are not opened within 60 seconds of opening the central locking.

The central locking cannot be opened using the interior switch if the anti-theft alarm system is armed.

Vehicles with anti-theft alarm systems are always equipped with an ultrasonic interior monitor. This may either involve first generation scanning of the interior (without self-diagnosis) or second generation scanning (with self-diagnosis). All that is required is appropriate encoding of the central locking system => Page 40 .

It is possible to confirm that the anti-theft alarm system has been armed when locking the central locking. This can be confirmed by the ATW horn sounding briefly or by the turn signal lamps flashing briefly. The central locking can also be coded so that there is no confirmation.

Confirmation of the radio remote control can be indicated by flashing turn signal lamps.

3.3 - Initiating self-diagnosis of the central locking system

Test requirements:

- ♦ Voltage supply and fuses for the relevant systems OK.

=> Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder

- ♦ Connect fault reader V.A.G 1551
=> Page 1.

Notes:

- ♦ If the display remains blank, check voltage supply to V.A.G 1551 according to current flow diagram.
- ♦ Additional operating instructions can be called up with the fault reader HELP key.
- ♦ The => key is used for the continuation of the program sequence.
- ♦ If an incorrect entry is made, press the C key to escape.
- Switch on printer with the Print key (indicator lamp in key lights up).
- Press key 1 for "Rapid data transfer".

-> Indicated on display:

Rapid data transfer HELP
Enter address word XX

Address word for the central locking: 35

- Press keys -3- and -5-.

-> Indicated on display:

Rapid data transfer Q
35 - Central locking system

- Confirm input with Q key.

-> Indicated on display:

Rapid data transfer
Tester sends address word 35

Vehicles ä 1997:

-> After approx. 5 seconds the display indicates, for example:

8L0862257M CL-Pump, ATW, Radio D04
Code 10184 WSC 06812

Vehicles 1998 ä:

-> After approx. 5 seconds the display indicates, for example:

8D0862257 CL-Pump, ATW, Radio D04
Code 13130 WSC 06812

Vehicles 18.00 ä:

-> After approx. 5 seconds the display indicates, for example:

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8D0862257 CL-Pump, ATW, Radio D12
Code 15179 WSC 06812

All vehicles:

- Press =>key.

-> Indicated on display:

Rapid data transfer HELP
Select function XX

Note:

Press HELP key to obtain a printout of available functions.

Self-diagnosis functions

The following functions are possible:

- 01 - Interrogating control unit version => Page 37 .
- 02 - Interrogating fault memory => Page 32 .
- 03 - Final control diagnosis=> Page 38 .
- 05 - Erasing fault memory => Page 60 .
- 06 - End output => Page 61 .
- 07 - Coding control unit => Page 40 .
- 08 - Read measured value block => Page 43 .

3.4 - Interrogating fault memory

Note:

The displayed fault information is not constantly updated but only when initiating self-diagnosis or with function 05 "Erase fault memory".

- Switch on printer with the Print key (indicator lamp in key lights up).

Performing function 02- "Interrogating fault memory"

-> Indicated on display:

Rapid data transfer HELP
Select function XX

- Press keys -0- and -2-.

-> Indicated on display:

Rapid data transfer Q
02 - Interrogate fault memory

- Confirm input with Q key.

-> The number of faults stored appears on the display.

X fault recognised

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The stored faults are displayed and printed out one after the other.

- Check printout against fault table and rectify all faults as necessary => Page 33 .

-> If the message "No fault recognised" is displayed, the program returns to its start position when pressing the =>key.

No fault recognised

-> Indicated on display:

Rapid data transfer HELP
Select function XX

If something else is displayed:

=> Fault reader operating instructions

- Erase fault memory (function 05)
=> Page 60 .
- End output (function 06) => Page 61
- Unplug diagnostic connector.

3.5 - Fault table for the central locking

Notes:

- ◆ The following table lists all the faults, with the corresponding 5-digit code numbers, that can be recognised by the central locking control unit and printed out by the V.A.G 1551.
- ◆ Fault codes appear only on print-out.
- ◆ Before replacing a component shown as faulty, check wiring and connections to component as well as earth connections according to current flow diagram.
- ◆ Once repairs have been completed, the fault memory is always to be interrogated again with fault reader V.A.G 1551 and erased. The vehicle is then to be relocked (with key or remote) and the fault memory is re-interrogated.
- ◆ All static and sporadic faults are stored in the fault memory:
When a fault occurs it is immediately identified as a static fault. If fault does not occur again it is registered as a sporadic fault. "/SP" appears on the right of the display.
- ◆ When ignition is switched on, all existing faults are automatically reclassified as sporadic faults and will only register as static faults if they still occur after testing.
- ◆ Sporadic faults which no longer occur after 50 opening cycles are erased automatically.
- ◆ The 3-digit fault type number appearing next to the fault code is a data code which can be ignored.

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
00955 Key 1 Adaption limit exceeded	- Key not matched - Key operated more than 200 times while out of range	- Perform key matching procedure => Page 46
00956 Key 2 Adaption limit exceeded	- Key not matched - Key operated more than 200 times while out of range	- Perform key matching procedure => Page 46
00957 Key 3 Adaption limit exceeded	- Key not matched - Key operated more than 200 times while out of range	- Perform key matching procedure => Page 46
00958		



Key 4 Adaption limit exceeded	- Key not matched - Key operated more than 200 times while out of range	- Perform key matching procedure => Page 46
----------------------------------	--	--

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
00991 Interior lighting Short to positive	- Short in wiring or in connections	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder
01360 Open switch for ATW Short to earth 1)	- Short to earth in the wiring. - Door contact switch -F2 defective	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Check switch -F2 and replace, if necess. => General Body Assembly, Exterior; Repair group 57
01361 Close switch for ATW Short to earth 1)	- Short to earth in the wiring. - Door contact switch -F2 defective	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Check switch -F2 and replace, if necess. => General Body Assembly, Exterior; Repair group 57

1) The fault is stored, if earth is applied for more than 1 minute, e. g. resulting from incorrect operation of the central locking. Only perform the fault remedy procedure if there are malfunctions otherwise simply erase the fault memory =>Page 60 .

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V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01362 Close tailgate switch -F124 Short to earth 1)	- Short to earth in the wiring. - Switch -F124 defective	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Check switch -F124 and replace, if necessary. => General Body Assembly, Exterior; Repair group 55; Boot lid/tailgate Boot lid/tailgate
01363 Switch for CL, driver door -F59 Implausible signal	- This display can appear depending on the system. Switch -F59 is not defective.	- Ignore fault display and erase the fault memory => Page 60
01364 Central locking switch, front passenger door - F114 Implausible signal	- This display can appear depending on the system. Switch -F114 is not defective.	- Ignore fault display and erase the fault memory => Page 60

1) The fault is stored, if earth is applied for more than 1 minute, e. g. resulting from incorrect operation of the central locking. Only perform the fault remedy procedure if there are malfunctions otherwise simply erase the fault memory =>Page 60 .

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01365		

Lock/unlock internal switch/lock switch Short to earth 1)	- Short to earth in wiring. - Switch -E150 defective	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Check switch -E150 and replace, if necessary
01365 Lock/unlock internal switch/lock switch Short to positive	- Short in the wiring - Switch -E150 defective	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Check switch -E150 and replace, if necessary

1) The fault is stored, if earth is applied for more than 1 minute, e. g. resulting from incorrect operation of the central locking. Only perform the fault remedy procedure if there are malfunctions otherwise simply erase the fault memory =>Page 60 .

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01366 Opening via crash signal Short to earth Open circuit/short to positive	- Final control diagnosis on airbag control unit -J234 or on control unit for central locking -J429 has been performed - Airbag control unit -J234 triggered - Short or open circuit in wiring between airbag control unit and central locking control unit	- Read fault memory of airbag control unit -J234 Delete fault memory => Page 60 Check wiring and connections between airbag control unit and central locking control unit according to current flow diagram and repair if necessary => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder
01367 Switching off of central locking pump.	- Insufficient pressure in the pneumatic lines. - Central locking pump defective	- Check pneumatic lines for leaks. Change central locking pump Check all control elements of central locking and replace, if necessary. => General Body Assembly, Exterior; Repair group 57; Central locking; Removing and installing pump for central locking Central locking; Removing and installing pump for central locking

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V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01368 Alarm from boot switch	- ATW has triggered as a result of unauthorised opening of the tailgate. - Contact switch in tailgate/boot lid - F123 defective. - False alarm.	- Erasing fault memory Check contact switch -F123 and replace if necessary. => General Body Assembly, Exterior; Repair group 55; Boot lid/tailgate Boot lid/tailgate
01369 Alarm from bonnet switch	- ATW has triggered as a result of unauthorised opening of the bonnet - Switch bonnet lid -F120 defect. - False alarm.	- Erasing fault memory Check contact switch -F120 and replace if necessary. => General Body Assembly, Exterior; Repair group 55; Bonnet Bonnet
01370		



Alarm from interior monitor Short to earth	- ATW has triggered as a result of signal from interior monitor - Control unit for ultrasonic sensors - J347 defective - Short circuit in wiring connection between control unit for ultrasonic sensors and CL control unit. - False alarm.	- Erasing fault memory Fault-finding after self-diagnosis ultrasonic interior monitor=> Page 48 Check wiring and connections between ultrasonic sensors control unit and central locking control unit according to current flow diagram and repair if necessary => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder
---	--	---

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01371 Alarm triggered by driver's door contact switch.	- ATW has triggered as a result of unauthorised opening of driver's door. - Door contact switch -F2 defective - False alarm.	- Erasing fault memory Check contact switch -F2 and replace if necessary. => General Body Assembly, Exterior; Repair group 57
01372 Alarm triggered by rear door contact switch/ front passenger door.	- ATW has triggered as a result of unauthorised opening of front passenger door and/ or rear doors - Door contact switches -F3, -F10, -F11 defective. - False alarm.	- Erasing fault memory Check and, if necessary, replace contact switches -F3, -F10 and -F11 => General Body Assembly, Exterior; Repair group 57
01373 Alarm from radio earth contact	- ATW has triggered as a result of unauthorised removal of radio. - Earth connection for ATW is interrupted - False alarm.	- Erasing fault memory Establish earth connection.

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01374 Alarm from terminal 15	- ATW has triggered as a result of unauthorised starting (short-circuiting). - Short-circuit between terminals 30 and 15. - False alarm.	- Erasing fault memory Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder
01389 Open switch for tailgate -F124 Short to earth	- Short to earth in the wiring. - Switch boot lid -F124 defective.	- Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Check and, if necessary, replace tailgate switch -F124 in tailgate lock => General Body Assembly, Exterior; Repair group 55; Boot lid/tailgate Boot lid/tailgate
65535		

Control unit defective	- Central locking control unit -J429 defective	- Replace central locking control unit - J429 => General Body Assembly, Exterior; Repair group 57; Central locking; Removing and installing pump for central locking Central locking; Removing and installing pump for central locking
------------------------	--	---

3.6 - Interrogating control unit version

-> Indicated on display:

Rapid data transfer Select function XX	HELP
---	------

- Press keys -0- and -1-.

-> Indicated on display:

Rapid data transfer 01 - Interrogate control unit version	Q
--	---

- Confirm input with Q key.

Vehicles ä 1997:

-> Indicated on display:

8L0862257M CL-Pump, ATW, Radio Dxx Code 10184 WSC 06812
--

Explanation of the display

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- ◆ 8L0862257M: Number of central locking control unit (also refer to Parts Catalogue)
- ◆ CL Pump, ATW, Radio: Component designation
- ◆ Dxx: Software version
- ◆ Code 10184: Coding => Page 40
- ◆ WSC 06812: Workshop code

- Press =>key.

Vehicles 1998 ä:

-> Indicated on display:

8D0862257 CL-Pump, ATW, Radio Dxx Code 13130 WSC 06812

Explanation of the display

- ◆ 8D0862257: Number of central locking control unit (also refer to Parts Catalogue)
- ◆ CL Pump, ATW, Radio: Component designation
- ◆ Dxx: Software version
- ◆ Code 13130: Coding => Page 40
- ◆ WSC 06812: Workshop code

- Press =>key.

Vehicles 18.00 ä:

-> Indicated on display:

8D0862257 CL-Pump, ATW, Radio Dxx Code 15179 WSC 06812



Explanation of the display

- ♦ 8D0862257: Number of central locking control unit (also refer to Parts Catalogue)
- ♦ CL Pump, ATW, Radio: Component designation
- ♦ Dxx: Software version
- ♦ Code 15179: Coding => Page 40
- ♦ WSC 06812: Workshop code

- Press =>key.

All vehicles:

-> If the display shows one of the messages, run through the fault finding procedure as described in the diagnosis management fault finding program.

Rapid data transfer	HELP
No reply from control unit	

=> Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder

Rapid data transfer	HELP
Communication problem	

Rapid data transfer	HELP
K wire not switching to earth	

Rapid data transfer	HELP
K wire not switched to positive	

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

3.7 - Final control diagnosis

Notes:

- ♦ The final control diagnosis may only be performed with the vehicle stationary and the engine not running!
- ♦ Any faults identified by the final control diagnosis must be traced and rectified!

The final control diagnosis activates the following elements in sequence:

- ♦ Generates alarm trigger (the alarm is triggered in turn via the alarm horn and the hazard warning lights)
- ♦ Activates interior monitor (will also be activated if interior monitor not fitted)
- ♦ Simulates a crash signal (activation of hazard warning lights for checking crash signal).

Performing function "03 - final control diagnosis"

- Press keys -0- and -3-.

-> Indicated on display:

Rapid data transfer	Q
03 - Final control diagnosis	

- Confirm input with Q key.

-> Indicated on display:

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Final control diagnosis
Cause alarm to trigger

The alarm is triggered in turn via the alarm horn and the hazard warning lights.

Note:

If no ATW is fitted, the hazard warning lights only are actuated.

- Press ⇒key.

→ Indicated on display:

Final control diagnosis
initiate next final control: press

- Press ⇒key.

→ Indicated on display:

Final control diagnosis
Activate interior monitor

The central locking control unit transmits a signal to activate the interior monitor (if fitted).

Notes:

- ◆ The system requires a waiting time of 30 sec after activation of interior monitor.
- ◆ On activation of alarm an entry is made in the fault memory of the central locking control unit "1370; Alarm from interior monitor" and in the ultrasonic sensors control unit "Alarm from sensor for ATW; front left, front right, rear left, rear right".
- ◆ The faults in the fault memory of the relevant control unit must be read out and erased.

- Press ⇒key.

→ Indicated on display:

Final control diagnosis
initiate next final control: press

- Press ⇒key.

→ Indicated on display:

Final control diagnosis
Simulate crash signal

Switching on the hazard warning lights.

Notes:

- ◆ The fault "1366, Opened via crash signal" is stored in the fault memory for the central locking control unit.
- ◆ Final control diagnosis is to be repeated with airbag control unit. When final control diagnosis of airbag control unit has been carried out, the fault "01366 Opening via crash signal" is also stored in the central locking control unit.
- ◆ The fault must be called up in the fault memory for the central locking control system => Page 60 .

- Press ⇒key.

→ Indicated on display:

Final control diagnosis
End

- Press ⇒key.



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This returns testing unit to basic function mode.

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

3.8 - Encoding control unit

The four individual central locking versions can be encoded according to the available function/ equipment versions using the code.

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Central locking versions:

- ♦ Only central locking
- ♦ Central locking with radio remote control
- ♦ Central locking with anti-theft alarm system
- ♦ Central locking with radio remote control and anti-theft alarm system

Notes:

- ♦ The basic functions of the central locking versions are listed in a standard coding table.
- ♦ Other encoding options are possible on request => Page 43 .

Performing function "07 - Code control unit"

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

- Press keys -0- and -7-.

-> Indicated on display:

Rapid data transfer	Q
07 - Encoding control unit	

- Confirm input with Q key.

-> Indicated on display:

Encode control unit	
Enter code number XXXXX	(0-32000)

- Enter coding of the central locking control unit with keypad according to table:

e. g.: 15179 (CL with ATW/radio) - vehicles 18.00 ä => Page 42

-> Indicated on display:

Code control unit	Q
Enter code 13130	(0-32000)

- Confirm input with Q key.

8D0862257 CL-Pump, ATW, Radio D12
Code 15179 WSC 06812

-> The display shows, for example, the control unit identification with the entered code.

Note:

Explanation of display =>Page 37 .

- Press =>key.

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

- Pressing keys -0- and -6- completes the function.

-> Indicated on display:

Rapid data transfer	Q
06 - End output	

- Confirm input with Q key.

-> Indicated on display:

Rapid data transfer	HELP
Enter address word XX	

3.9 - Standard coding table for vehicles > 1997:

Model	Central locking version	Standard coding
Audi A4	- Vehicles with central locking only	00000
	- Vehicles with central locking and anti-theft alarm system	01416
	- Vehicles with central locking and radio remote control	08768
	- Vehicles with central locking, anti-theft alarm system and radio remote control	10184

3.10 - Standard coding table for vehicles 1998 > :

Model	Central locking version	Standard coding
Audi A4	- Vehicles with central locking only	00000
	- Vehicles with central locking and anti-theft alarm system	00266
	- Vehicles with central locking and radio remote control	12864
	- Vehicles with central locking, anti-theft alarm system and radio remote control	13130

3.11 - Standard coding table for vehicles (tailgate with soft touch) 1999 > :

Model	Central locking version	Standard coding
Audi A4	- Vehicles with central locking only	00001
	- Vehicles with central locking and anti-theft alarm system	00267
	- Vehicles with central locking and radio remote control	12865
	- Vehicles with central locking, anti-theft alarm system and radio remote control	13131

**Note:***The coding of vehicles with tailgate fitted with soft touch, includes:**This unlocks and opens on mechanical unlocking of the tailgate (via tailgate lock). Thus, the tailgate can be opened without actuation of the soft touch.***3.12 - Standard coding table for vehicles 18.00 > :**

Model	Central locking version	Standard coding
Audi A4	- Vehicles with central locking only	02049
	- Vehicles with central locking and anti-theft alarm system	02315
	- Vehicles with central locking and radio remote control	14913
	- Vehicles with central locking, anti-theft alarm system and radio remote control	15179

Notes:*The coding of vehicles as of CW 18.00 includes:*

- ♦ Modified door or window lifter logic. As soon as the driver's door is opened with "terminal 15 off", no window lifters can be actuated.
- ♦ This unlocks and opens on mechanical unlocking of the tailgate (via tailgate lock). Thus, the tailgate can be opened without actuation of the soft touch.

Code 13130 includes the following:

Radio remote control is activated	- 8192
Comfort closing/locking via radio remote control	- 64
Hazard warning actuation on opening via radio remote control	- 4096
Hazard warning actuation on closing via radio remote control	- 512
Tailgate/boot lid logic	- 256
Anti-theft alarm is activated	- 8
Hazard warning actuation on activation of anti-theft alarm	- 2
Total:	- 13130

Code 15179 includes the following:

Radio remote control is activated	8192
Comfort closing/locking via radio remote control	+ 64
Hazard warning actuation on opening via radio remote control	+ 4096
Hazard warning actuation on closing via radio remote control	+ 512
Window lifter logic, USA	+ 2048
Tailgate/boot lid logic	+ 256
Anti-theft alarm is activated	+ 8
Hazard warning actuation on activation of anti-theft alarm	+ 2
Tailgate release (unlocking the tailgate via the lock also activates the soft touch motor)	+ 1

Total: - 15179

All vehicles:

In addition to the basic encoding customers can be offered the following extras:

To activate the following extras, the numerical value below must be added to the relevant basic encoding.

- Security central locking (SCL)	+ 4
- Automatic locking of vehicle as of a speed of approx. 15 km/h	+ 32 (with SCL +36)

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The value 4 must be added to the current code for SCL and 32 for speed-related locking.

e.g. CL pump with ATW/radio and SCL (15179 + 4 = 15183).

Note:

The function of the security central locking system (SCL) is as follows (for locked vehicle):

Once-only actuation of the CL system (with key or radio remote control system) releases the driver's door and filler neck compartment lid, whilst all other doors and the tailgate/boot lid remain locked.

Immediate renewed actuation of the CL system releases the remaining doors and the tailgate/boot.

3.13 - Reading measured value block

Note:

The function "Read measured value block" can be used to determine the current status of the system.

Performing function "08 - Read measured value block"

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

- Press keys -0- and -8-.

-> Indicated on display:

Rapid data transfer	Q
08 - Read measured value block	

- Confirm input with Q key.

-> Indicated on display:

Reading measured value block
Enter display group number XXX

- Enter display group number 001 and confirm input with Q key.

The measured value block which has been selected will appear in standard format.



3.14 - Measured value block overview

Measured value block 001

Read measured value block 1				⇒	◀ Indicated on display
0100	100	0000	0000		
			X		▪ Tailgate: 1 = opened, 0 = closed
			X		▪ Boot light: 1 = Light on, 0 = Light out
			X		▪ TG/BL release switch (only A8):
			X		▪ 1 = actuated, 0 = not actuated
					▪ Motor for TG/BL release (only A8):
					▪ 1 = motor running, 0 = motor not running
		XX			▪ Switch for actuator element or interior switch on passenger door:
		XX			▪ 00 = not actuated, 01 = lock, 10 = unlock, 11 = not permitted
					▪ Switch for actuator element or interior switch on driver's door:
					▪ 00 = not actuated, 01 = lock, 10 = unlock, 11 = not permitted
	X				▪ Front passenger door and rear doors: 1 = open, 0 = closed (USA: only rear doors)
	X				▪ Driver door: 1 = open, 0 = closed (USA: Driver and front passenger door)
	X				▪ Bonnet: 1 = open, 0 = closed
X					Key position in the lock cylinders
X					▪ Unlock driver/ passenger door: 1 = key actuated, 0 = key in centre position
X					▪ Lock driver/ passenger door: 1 = key actuated, 0 = key in centre position
X					▪ Unlock tailgate: 1 = key actuated, 0 = key in centre position
X					▪ Lock tailgate: 1 = key actuated, 0 = key in centre position

Measured value block 002

Read measured value block 2			⇒	◀ Indicated on display
0100	1000	000		
		X		▪ Terminal 15: 1 = Ignition on, 0 = Ignition off
		X		▪ S-Contact: 1 = S -contact on, 0 = S- contact off
		X		▪ Earth signal from radio: 1 = Radio installed, 0 = Radio removed
	X			▪ "Open" radio remote control switch: 1 = actuated, 0 = not actuated
	X			▪ Radio remote control switch "Close": 1 = actuated, 0 = not actuated
	X			▪ Radio remote control switch for "Tailgate" open (only A8): 1 = actuated, 0 = not actuated
	X			▪ Radio remote control switch for "Panic" (only USA): 1 = actuated, 0 = not actuated
X				▪ Interior light control: 1 = Interior light on, 0 = Interior light off
X				▪ Control cable for window lifter/sun roof:
X				▪ 1 = terminal 87 (maintaining the voltage supply), 0 = earth
X				▪ "Comfort close" function: 1 = Comfort close actuated, 0 = not actuated
				▪ "Comfort open" function: 1 = Comfort open actuated, 0 = not actuated

Measured value block 003

Read measured value block 3	⇒	◀ Indicated on display
-----------------------------	---	------------------------

0	0001	0	0000	
			X	▪ "Open" radio remote control switch: 2)
			X	▪ 1 = actuated, 0 = not actuated
			X	▪ Radio remote control switch "Close": 2)
			X	▪ 1 = actuated, 0 = not actuated
				▪ Radio remote control switch for "Tailgate" open (only A8): 2)
				▪ 1 = actuated, 0 = not actuated
				▪ Radio remote control switch for "Panic" (A8 USA only): 2)
				▪ 1 = actuated, 0 = not actuated
		X		▪ Disregard measured value
X				▪ Radio remote control key mem. locat. 4 1): 1 = Address occupied, 0 = not occupied
X				▪ Radio remote control key mem. locat. 3 1): 1 = Address occupied, 0 = not occupied
X				▪ Radio remote control key mem. locat. 2 1): 1 = Address occupied, 0 = not occupied
X				▪ Radio remote control key mem. locat. 1 1): 1 = Address occupied, 0 = not occupied
X				▪ Disregard measured value

1) The corresponding key memory address for the radio remote control flashes if the radio remote control is actuated.

2) In addition, this measured value block displays non-matched radio remote control keys, e.g., relating to the function check of the radio remote control key.

Measured value block 004 (vehicles up to software version D04)

Read measured value block 4				→	Indicated on display
101	0101	1000	1000		
			X		▪ Anti-theft alarm system activated: 0 = No, 1 = Yes
			X		▪ Security CL activated: 0 = No, 1 = Yes
			X		▪ Ignore measured value (display always 0)
			X		▪ Vehicle with Swiss registration: 0 = No, 1 = Yes
		X			▪ Anti-theft alarm system activated: 0 = No, 1 = Yes
		X			▪ Interior monitor is equipped with self-diagnosis features:
		X			▪ 0 = Yes, 1 = No
		X			▪ Ignore measured value (display always 0)
		X			▪ Vehicle is a Convertible: 0 = No, 1 = Yes
X					▪ USA-door logic 1) activated: 0 = No, 1 = yes
X					▪ Confirming the anti-theft alarm system using hazard warning system:
X					▪ 0 = No, 1 = Yes
X					▪ Confirming the anti-theft alarm using the ATW horn 2): 0 = No, 1 = Yes
					▪ Confirming the radio remote control using the hazard warning system:
					▪ 0 = No, 1 = Yes
X					▪ Radio remote control activated: 0 = No, 1 = Yes
X					▪ For security central locking, select central locking function if operating via remote, otherwise select security central locking function: 0 = No, 1 = Yes
X					▪ Automatic close/open also possible using the radio remote control: 0 = No, 1 = Yes

1) All window lifters are thereby disabled when the ignition is off and the driver door is simultaneously open.

2) No longer permissible under German law.



Measured value block 004 (vehicles as of software version D05)

Read measured value block 4			⇒	◀ Indicated on display
101	1101	0000	0001	
		X X X X		▪ Anti-theft alarm system activated: 0 = No, 1 = Yes ▪ Security CL activated: 0 = No, 1 = Yes ▪ Confirmat. of anti-theft alarm via hazard warning system: ▪ 0 = No, 1 = Yes ▪ Open tailgate, tailgate lock cylinder: 0 = No, 1 = Yes
		X X X X		▪ Anti-theft alarm system activated: 0 = No, 1 = Yes ▪ Inter. monitor is equipped with self-diagnosis features: 0 = Yes, 1 = No ▪ Locking the vehicle using speed: 0 = No, 1 = Yes ▪ Vehicle is a Convertible: 0 = No, 1 = Yes
	X X X X			▪ USA-door logic 1) activated: 0 = No, 1 = yes ▪ Confirmation of "open" radio remote control switch via hazard warning system: ▪ 0 = No, 1 = Yes ▪ Confirming the anti-theft alarm using the ATW horn 2): 0 = No, 1 = Yes ▪ Confirmation of "close" radio remote control switch via hazard warning system: ▪ 0 = No, 1 = Yes
X X X				▪ Radio remote control activated: 0 = No, 1 = Yes ▪ For security central locking, select central locking function if operating via remote, otherwise select security central locking function: 0 = No, 1 = Yes ▪ Automatic close/open also possible using the radio remote control: 0 = No, 1 = Yes

- 1) All window lifters are thereby disabled when the ignition is off and the driver door is simultaneously open.
- 2) No longer permissible under German law.

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3.15 - Matching or deleting vehicle key for radio remote control

The vehicle is supplied with two remote keys.

You must match radio remote control ignition keys which are new or have not yet been matched using the central locking control unit -J429.

The vehicle keys must also be adapted to immobiliser control electronics.

⇒ Electrical System; Repair group 01; Immobiliser Self-diagnosis - Fixed code Immobiliser Self-diagnosis - Fixed code

If a fault from 00955 to 00958 is displayed, the remote keys must be rematched.

Matching procedure for new remote keys

- Switch on the ignition (using additional key).

- Check how many keys have already been matched in measured value block 003 => Page 44 .

-> Indicated on display:

Read measured value block	3
0 0001 0 0000	

Display zone 2 shows how many remote keys have been matched and in which memory positions (1x in position 1 in example shown).

- Lock vehicle from outside with the key to be adapted by way of the driver's lock door.
- Within 5 seconds press "unlock" key of remote key until next memory position is reached (2x in example).

Each time the button is pressed the hazard lights will flash to confirm.

- Wait 5 seconds.
- Now press the "unlock" key again to confirm the matching process.

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This vehicle key is now saved and the central locking must unlock.

- Switch off ignition and remove ignition key.
- Check function of new remote key.
- Check display zone 2 measured value block 003. It must now contain an additional "1" (in example: 0011).

-> Display zone 2 shows how many radio remote control keys have been matched and in which memory positions (2x in positions 2 and 1 in example shown).

Read measured value block	3
0 0011 0 0000	

Notes:

- ◆ Repeat matching process for any further keys. Ignition must always be switched off following storage.
- ◆ Make sure new keys are always matched to vacant memory positions. If use is made of occupied memory positions (can be seen from "1") the radio key already matched for this memory position will no longer function.

Re-matching procedure for existing remote keys

Note:

This procedure must be performed after changing the batteries in remote keys, or if the fault reader displays fault codes 00955 to 00958.

- Press key on remote key.

If vehicle is neither locked nor unlocked:

- Lock and unlock vehicle within 30 seconds by way of driver's door lock.
- Then check function of re-matched remote key.

If vehicle is still not locked or unlocked, key must be re-matched. Match remote key =>Page 46 .

Procedure for erasing memory positions

Note:

It is possible to erase all of the memory addresses, e. g., if the customer has misplaced a radio remote control key. Please proceed as follows:

- Switch on the ignition using a key.
- Then mechanically lock the central locking from outside using a key.
- Press "open/unlock" button on radio remote control key five times at 1 second intervals.



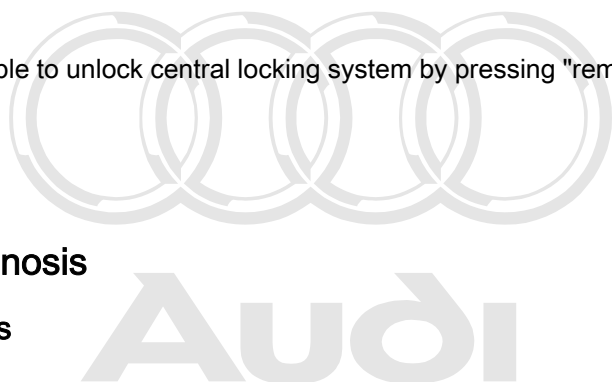
Each time the button is pressed the hazard lights will flash to confirm.

- Then press the "Open" remote control switch after 6 seconds to confirm this erasing procedure once again.

The central locking is now not permitted to unlock the vehicle via the radio remote control.

- Switch off ignition and remove ignition key.
- Memory positions are erased; it must not be possible to unlock central locking system by pressing "remote opening" button.

You can now match up to four keys.



4 - Ultrasonic interior monitor self-diagnosis

4.1 - Ultrasonic interior monitor self-diagnosis

4.2 - General notes

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The ultrasonic interior monitor is only available in combination with the anti-theft alarm system (ATW).

The addition of an ultrasonic interior monitor increases the level of protection offered by the ATW.

The interior monitor will set off the ATW alarm if an attempt is made to enter the vehicle.

Function

The ultrasonic interior monitor consists of:

- ♦ Control unit for ultrasonic sensors -J347
- ♦ Ultrasonic sensor left for ATW -G170
- ♦ Ultrasonic sensor right for ATW -G171

- ♦ Shattered glass sensor, side window, rear left -G183 (Avant only)
- ♦ Shattered glass sensor, side window, rear right -G184 (Avant only)
- ♦ Switch for interior monitor -E183

The ultrasonic sensors in the upper part of the left and right B-pillar trim scanning the side windows and transmit scanning signals to the ultrasonic sensors control unit.

If the scanning signal changes, the ultrasonic sensors control unit triggers the alarm via the anti-theft alarm control unit.

The shattered glass sensors in the side windows and the conductor loop in the rear window provide outer skin protection for the vehicle, in addition to the contact switches in the locking units, but only on the Avant.

The control unit for the interior monitor actuates the warning lamps next to the door locking knobs. These warning lamps permit additional interior monitor diagnosis.

The interior monitor switch is used to switch off the interior monitor manually when locking the vehicle.

=> Operating instructions

The ultrasonic interior monitor features a comprehensive self-diagnosis. If malfunctions occur in system components, fault codes are stored in fault memory of control unit. These can then be identified using fault reader V.A.G 1551 or vehicle systems tester V.A.G 1552.

4.3 - Initiating self-diagnosis of the interior monitor

Test requirements:

- ◆ Check fuse using current flow diagram.
- ◆ Connect fault reader V.A.G 1551
=> Page 1 .
- ◆ Anti-theft alarm not activated.

Notes:

- ◆ If the display remains blank, check voltage supply to V.A.G 1551 according to current flow diagram.
 - ◆ Additional operating instructions can be called up with the fault reader HELP key.
 - ◆ The => key is used for the continuation of the program sequence.
 - ◆ If an incorrect entry is made, press the C key to escape.
- Switch ignition on.
 - Switch on printer with the Print key (indicator lamp in key lights up).
 - Press key 1 for "Rapid data transfer mode".

-> Indicated on display:

Rapid data transfer HELP
Enter address word XX

Address word for interior monitor: 45

- Press keys -4- and -5-.

-> Indicated on display:

Rapid data transfer Q
45 - Interior monitor

- Confirm input with Q key.

-> After approx. 5 seconds the display indicates, for example:

4B0951173 Interior scanning sys. D00
□ Code 00101 WSC 06812

- Press =>key.

Note:

Press HELP key to obtain a printout of available functions.

Self-diagnosis functions

The following functions are possible:

- 01 - Interrogating control unit version => Page 53 .
- 02 - Interrogating fault memory => Page 50 .
- 03 - Final control diagnosis=> Page 54 .
- 05 - Erasing fault memory => Page 60 .
- 06 - End output => Page 61 .
- 07 - Coding control unit => Page 56 .



08 - Read measured value block => Page **57** .

10 - Adaption=> Page **58** .

4.4 - Interrogating fault memory

Note:

The displayed fault information is not constantly updated but only when initiating self-diagnosis or with function 05 "Erase fault memory".

- Switch on printer with the Print key (indicator lamp in key lights up).

Performing function 02 - "Interrogating fault memory"

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

- Press keys -0- and -2-.

-> Indicated on display:

Rapid data transfer	Q
02 - Interrogate fault memory	

- Confirm input with Q key.

-> The number of faults stored appears on the display.

X fault recognised

The stored faults are displayed and printed out one after the other.

- Check printout against fault table and rectify all faults as necessary => Page **50** .

-> If the message "No fault recognised" is displayed, the program returns to its start position when pressing the =>key.

No fault recognised

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

If something else is displayed:

=> Fault reader operating instructions

- Erase fault memory (function 05)
=> Page **60** .
- End output (function 06) => Page **61**
- Switch off ignition and detach diagnostic connector.

4.5 - Fault table for interior monitor:

Notes:

- ♦ The following table lists all the faults, with the corresponding 5-digit code numbers, that can be recognised by the ultrasonic sensors and printed out by the V.A.G 1551.
- ♦ Fault codes appear only on print-out.

- ◆ Before replacing a component shown as faulty, check wiring and connections to component as well as earth connections according to current flow diagram.
- ◆ After carrying out repairs activate and deactivate system once. Then interrogate fault memory again with fault reader V.A.G 1551 and erase memory.
- ◆ All static and sporadic faults are stored in the fault memory:
When a fault occurs it is immediately identified as a static fault. If fault does not occur again it is registered as a sporadic fault. "/SP" appears on the right of the display.
- ◆ All faults present are set to sporadic after activation and are only stored as being static if they are still present on completion of checking.
- ◆ Sporadic faults which no longer occur after 50 activation cycles are erased automatically.
- ◆ The 3-digit fault type number appearing next to the fault code is a data code which can be ignored.

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01377 Ultrasonic sensor 1 for ATW -G170 Short to positive	- Short circuit in wiring or in connections between ultrasonic sensor 1 for ATW -G170 and the ultrasonic sensors control unit - J347 - Ultrasonic sensor 1 for ATW - G170 defective	- Check and, if necessary, repair wiring and connections according to the current flow diagram. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check and if necessary replace ultrasonic sensor 1 for ATW -G170 => General Body Assembly, Interior; Repair group 70; Trims; Removing and installing B-pillar trim Trims; Removing and installing B-pillar trim
Open circuit/short circuit to earth	- Open circuit in wiring between ultrasonic sensor 1 for ATW -G170 and the ultrasonic sensors control unit -J347 - Ultrasonic sensor 1 for ATW - G170 defective	- Check and, if necessary, repair wiring and connections according to the current flow diagram. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check and if necessary replace ultrasonic sensor 1 for ATW -G170 => General Body Assembly, Interior; Repair group 70; Trims; Removing and installing B-pillar trim Trims; Removing and installing B-pillar trim
Implausible signal	- Faults on activation of ultrasonic interior monitor.	- Perform functional test =>Page 54 .

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01378 Ultrasonic sensor right for ATW -G171 Short to positive	- Short circuit in wiring or in connections between ultrasonic sensor right for ATW -G171 and the ultrasonic sensors control unit - J347 - Ultrasonic sensor right for ATW -G171 defective	- Check and, if necessary, repair wiring and connections according to the current flow diagram. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check and if necessary replace ultrasonic sensor right for ATW - G171 => General Body Assembly, Interior; Repair group 70; Trims; Removing and installing B-pillar trim Trims; Removing and installing B-pillar trim



Open circuit/short circuit to earth	- Open circuit in wiring between ultrasonic sensor right for ATW - G171 and the ultrasonic sensors control unit -J347 - Ultrasonic sensor right for ATW -G171 defective	- Check and, if necessary, repair wiring and connections according to the current flow diagram. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check and if necessary replace ultrasonic sensor right for ATW - G171 => General Body Assembly, Interior; Repair group 70; Trims; Removing and installing B-pillar trim Trims; Removing and installing B-pillar trim
Implausible signal	- Faults on activation of ultrasonic interior monitor.	- Perform functional test =>Page 54 .

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01379 Switch for interior monitor -E183 Short to earth 1)	- Wiring defect between switch for interior monitor -E183 and the ultrasonic sensors control unit -J347 - Switch for interior monitor - E183 defective	- Check and, if necessary, repair wiring and connections according to the current flow diagram. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace switch for interior monitor -E183 => Electrical System; Repair group 96; Servicing switch Servicing switch
01380 Alarm triggered by sensor for ATW rear left	- Alarm triggered by attempted forced entry at rear left window or following a functional test - False alarm.	- Erasing fault memory - Performing functional test =>Page 58 .
01381 Alarm triggered by sensor for ATW rear right	- Alarm triggered by attempted forced entry at rear right window or following a functional test - False alarm.	- Erasing fault memory - Performing functional test =>Page 58 .

1) Fault is set if earth is applied for more than 1 minute.

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01382 Alarm triggered by sensor for ATW front left	- Alarm triggered by attempted forced entry at front left window or following a functional test - False alarm.	- Erase fault memory - Perform functional test =>Page 58 .
01383 Alarm triggered by sensor for ATW front right	- Alarm triggered by attempted forced entry at front right window or following a functional test - False alarm.	- Erase fault memory - Perform functional test =>Page 58 .

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
----------------------	--------------------------	--------------

01384 1) Alarm via shattered glass sensor (Shattered glass sensor, rear left side window - G183; Shattered glass sensor, rear right side window - G184 and conductor loop for rear window heating)	- Short or open circuit in wiring or connections between shattered glass sensors and rear window heating to ultrasonic sensors control unit -J347 - The ATW has triggered as a result of an attempted forced entry via one of the side windows or via the rear window. - Open circuit on conductor loop in one of the two side windows or the rear window - False alarm.	- Erase fault memory - Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Replace side window with open circuit on conductor loop => General Body Assembly, Exterior; Repair group 64; Removing and installing Avant side window Removing and installing Avant rear window
--	---	---

1) Avant only

V.A.G 1551 print-out	Possible causes of fault	Fault remedy
01403 1) Shattered glass sensors, rear (Shattered glass sensor, rear left side window - G183; Shattered glass sensor, rear right side window - G184 and conductor loop for rear window heating)	- During activation of the ATW a short or open circuit occurs in wiring or connections between shattered glass sensors and rear window heating to ultrasonic sensors control unit -J347 - During activation of the ATW an open circuit occurred on a conductor loop in one of the two side windows or the rear window	- Erase fault memory - Fault finding according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check conductor loops in side windows and replace side window if necessary => General Body Assembly, Exterior; Repair group 64; Removing and installing Avant side window Removing and installing Avant rear window
65535 Control unit defective	- Control unit for ultrasonic sensors -J347 defective	- Replace control unit for ultrasonic sensors -J347

1) Avant only

4.6 - Interrogating control unit version

- Press keys -0- and -1-.

-> Indicated on display:

Rapid data transfer Q
01 - Interrogate control unit version

- Confirm input with Q key.

-> Indicated on display, e.g.:

4B0951173 Interior scanning sys. Dxx
□
Code 00101 WSC 06812

Explanation of the display

- ◆ 4B0951173: Number of control unit (also refer to Parts Catalogue)
- ◆ Interior monitor sys: Component designation and version
- ◆ Dxx: Software version
- ◆ Code 00101: Coding => Page 56



- ♦ WSC 06812: Workshop code
- The ➡ key is used to return to the basic function.

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

4.7 - Functional test of interior monitor

- Open side window approx. 10 cm.
- Switch off ignition and remove ignition key.
- Close all doors.
- Lock vehicle thus activating anti-theft alarm and interior monitor.
- Wait 30 seconds until warning lamp in door starts to flash slowly every 2 seconds ($f = 0.5 \text{ Hz}$).
- Move your hand through the open window and near to the sensor.
- Alarm is triggered if interior monitor is functioning properly. An entry is made in the fault memory of the central locking control unit "1370; Alarm from interior monitor" and in the ultrasonic sensors control unit "Alarm from sensor for ATW; front left, front right, rear left, rear right".
- Unlock vehicle and thus deactivate alarm.
- The faults in the fault memory of the relevant control unit must be read out and erased.

4.8 - Final control diagnosis

Notes:

- ♦ The final control diagnosis may only be performed with the vehicle stationary and the engine not running!
- ♦ Any faults identified by the final control diagnosis must be traced and rectified!

Performing final control diagnosis:

-> Indicated on display:

Select rapid data transfer	HELP
Function XX	

- Press keys 0 and 3 (03 selects the "Final control diagnosis" function).

-> Indicated on display:

Rapid data transfer	Q
03 - Final control diagnosis	

- Confirm input with Q key.

The final control diagnosis activates the following elements in sequence:

- ♦ Actuation of warning lamps next to door locking knob at driver's/passenger door
- ♦ Triggering of anti-theft alarm (no function)
- ♦ Actuation of power supply lead to ultrasonic sensors.
- ♦ Actuation of clock signal lead to ultrasonic sensors.

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An "anti-theft alarm" cannot be triggered through this final control diagnosis. To trigger a "anti-theft alarm", use the central locking control unit => Page 54 to carry out the final control diagnosis.

Performing function "03 - final control diagnosis"

- Press keys -0- and -3-.

-> Indicated on display:

Rapid data transfer Q
 03 - Final control diagnosis

- Confirm input with Q key.

-> Indicated on display:

Final control diagnosis
 Warning lamp for alarm system -K95

Actuation of warning lamps next to door locking knob at driver's/passenger door

- Press =>key.

-> Indicated on display:

Final control diagnosis
 Cause alarm to trigger

Cause alarm to trigger (no function)

- Press =>key.

-> Indicated on display:

Final control diagnosis
 Power supply lead

Control unit transmits constant voltage of 8 V for checking wiring =>Page 55 .

- Press =>key.

-> Indicated on display:

Final control diagnosis
 Clock signal lead

Control unit transmits constant voltage of 5 V for checking wiring =>Page 55 .

- Press =>key.

-> Indicated on display:

Final control diagnosis
 End

- Press =>key.

This returns testing unit to basic function mode.

-> Indicated on display:

Rapid data transfer HELP
 Select function XX

- Erase fault memory (function 05)
 => Page 60 .
- End output (function 06) => Page 61

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Checking power supply lead

- Remove the two ultrasonic sensors.

=> General Body Assembly, Interior; Repair group 70; Trims; Removing and installing B-pillar trim Trims Removing and installing B-pillar trim

- Detach electrical connectors.



- Perform final control diagnosis => Page 54 and select control element test "Power supply lead".

-> Indicated on display:

Final control diagnosis
Power supply lead

- Use hand-held multimeter V.A.G 1526 to measure voltage at wiring-harness connector between contact 2 (voltage supply) and contact 3 (earth).

Specified value: 8 V

- Terminate final control diagnosis.
- Re-install ultrasonic sensors.
- Erase fault memory (function 05)
=> Page 60.
- End output (function 06) => Page 61

Checking clock signal lead

- Remove the two ultrasonic sensors.

=> General Body Assembly, Interior; Repair group 70; Trims; Removing and installing B-pillar trim Trims Removing and installing B-pillar trim

- Detach electrical connectors.
- Perform final control diagnosis => Page 54 and select control element test "Clock signal lead".

-> Indicated on display:

Final control diagnosis
Clock signal lead

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- Use hand-held multimeter V.A.G 1526 to measure voltage at wiring-harness connector between contact 1 (clock signal) and contact 3 (earth).

Specified value: 5 V

- Terminate final control diagnosis.
- Re-install ultrasonic sensors.
- Erase fault memory (function 05)
=> Page 60.
- End output (function 06) => Page 61

4.9 - Encoding control unit

This function permits encoding of the interior monitor as follows:

- ♦ Model: Audi A4
- ♦ Activation mode of ATW: static
- ♦ Body version: Saloon/Avant

Notes:

- ♦ The coding sets the universal control unit for ultrasonic sensors -J347 according to the requirements of the particular model version and anti-theft alarm system.
- ♦ The coding table only gives the coding combinations that are possible for the Audi A4.

Performing function "07 - Code control unit"

-> Indicated on display:

Rapid data transfer HELP
Select function XX

- Press keys -0- and -7-.

-> Indicated on display:

Rapid data transfer Q
07 - Encoding control unit

- Confirm input with Q key.

-> Indicated on display:

Encoding control unit
Enter code number XXXXX (0-32000)

- Enter code number:

Code00101

00	Filler positions, no significance
1	Audi A4
0	Static activation mode
1	Saloon
2	Avant

Code control unit Q
Enter code number 00101 (0-32000)

-> Indicated on display:

- Confirm input with Q key.

-> Indicated on display, e.g.:

4B0951173 Interior scanning sys.
Code 00101 WSC 06812

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- Press => key to end coding procedure.

-> Indicated on display:

Rapid data transfer HELP
Select function XX

- Pressing keys -0- and -6- completes the function.

-> Indicated on display:

Rapid data transfer Q
06 - End output

- Confirm input with Q key.

4.10 - Reading measured value block

Performing function "08 - Read measured value block"

-> Indicated on display:

Rapid data transfer HELP
Select function XX

- Press keys -0- and -8-.

-> Indicated on display:



Rapid data transfer Q
08 - Read measured value block

- Confirm input with Q key.

-> Indicated on display:

Reading measured value block
Enter display group number XXX

- Enter display group number 001 and confirm input with Q key.

The measured value block which has been selected will appear in standard format.

4.11 - Measured value block overview

Measured value block 001

Read measured value block 1		⇒	◀ Indicated on display
0000	100%		
			Vacant measured value block
			Vacant measured value block
			Sensitivity of sensors 1) ▪ Display in percent 50... 100 %
X	Switch settings		
X	▪ 1st Position: Switch for interior monitoring 2) (pressed = 1, not pressed = 0)		
X	▪ 2nd Position: Contact switch, driver's door (driver's door open = 1, driver's door closed = 0)		
X	▪ 3rd Position: Anti-theft alarm (active = 1, not active = 0)		
	▪ 4th Position: Shattered glass sensors 3)(1 = shattered glass detected, 0 = windows OK)		

- 1) see function "Adaption" => Page 58 .
- 2) Prerequisite: Driver's door must be open.
- 3) Avant only

4.12 - Adaption

The adaption function makes it possible to implement and store the following modification:

- ♦ Setting of ultrasonic sensors can be adjusted such that they react less sensitively.

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Performing adaption (function 10)

-> Indicated on display:

Rapid data transfer HELP
Select function XX

- Press keys -0- and -5-.

-> Indicated on display:

Rapid data transfer Q
 10 - Adaption

- Confirm input with Q key.

-> Indicated on display:

Adaption
 Feed in channel No.

- Press keys -0- and -1-.

-> Indicated on display:

Adaption Q
 Channel display 10

- Confirm input with Q key.

-> Indicated on display:

The sensitivity level of the sensors is displayed: e.g. 100 %

Channel 1 Adaption 100
 Sensitivity in % (-1 3-L

Note:

The maximum ultrasonic sensor setting made at the factory is 100% and can be reduced to 50%.

- Press =>key.

-> Indicated on display:

Channel 1 Adaption 100
 Enter adaption value XXXXX

- Enter the sensitivity value,
 e.g. 75 % = 00075

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-> Indicated on display:

Channel 1 Adaption 100 Q
 Enter adaption value 00075

- Confirm input with Q key.

-> Indicated on display:

Channel 1 Adaption 75 Q
 Sensitivity in % (-1 3-L

- Confirm input with Q key.

-> Indicated on display:

Channel 1 Adaption 75 Q
 Store changed value?

- Confirm input with Q key.

-> Indicated on display:

Channel 1 Adaption 75
 Changed value is stored

- Terminate adaption of sensitivity with the =>key.

-> Indicated on display:



Rapid data transfer HELP
Enter address word XX

4.13 - Erasing fault memory

Note:

If it is not possible to erase fault memory, interrogate it once again and rectify faults.

Preconditions:

- ♦ Fault memory interrogated %
- ♦ All faults rectified.

After fault memory has been successfully interrogated:

Performing function 05- "Erase fault memory"

-> Indicated on display:

Rapid data transfer HELP
Select function XX

- Press keys -0- and -5-.

-> Indicated on display:

Rapid data transfer Q
05 - Erase fault memory

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- Confirm input with Q key.

-> Indicated on display:

Rapid data transfer
Fault memory is erased

The fault memory is now erased.

- Press ➡key.

-> Indicated on display:

Rapid data transfer HELP
Select function XX

Warning!
Fault memory has not been interrogated

-> The appearance of this message on the display indicates an error in the test sequence.

♦ Rapid data transfer
Fault memory has not been interrogated

-> The appearance of this message on the display indicates an error in the test sequence.

Observe test sequence exactly: First interrogate fault memory, if necessary rectify faults, then erase.

Erase according to fault memory; exit output with 0; deactivate and reactivate ignition; interrogate fault memory again.

4.14 - End of output

Perform function "06 - Terminate output"

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

- Press keys -0- and -6-.

-> Indicated on display:

Rapid data transfer	Q
06 - End output	

- Confirm input with Q key.

-> Indicated on display:

Rapid data transfer	HELP
Enter address word XX	

- Switch off ignition.
- Disconnect connectors to fault reader V.A.G 1551.



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