

Audi A2 2001 ➤

Body Self-diagnosis

Edition 06.2000



Audi

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List of Workshop Manual Repair GroupsList 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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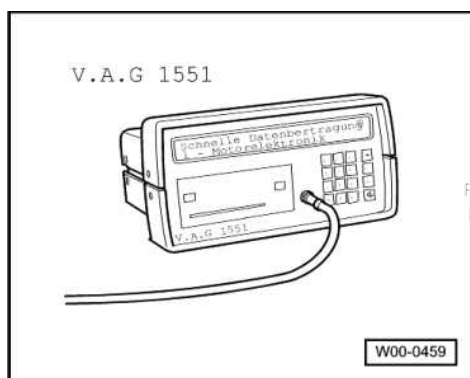
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01 - Self-diagnosis

1 - Connecting fault reader V.A.G 1551

1.1 - Connecting fault reader V.A.G 1551

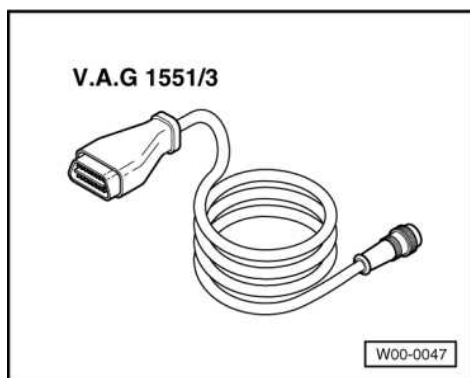
1.2 - Tools



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Special tools, workshop equipment, test equipment and auxiliary items required

-> Fault reader V.A.G 1551



-> V.A.G 1551/3 cable

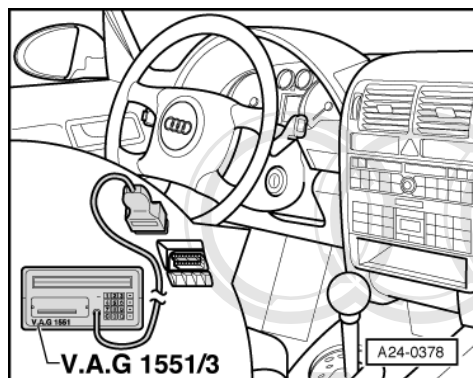
Notes:

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.

All functions which have been carried out with the V.A.G 1551/1552 so far can also be carried out with the new tester VAS 5051.

Test conditions

- Battery voltage at least 11 V



- Earth connections on engine and gearbox OK.
 - Fuse OK.
- -> Connect fault reader V.A.G 1551 or vehicle system tester V.A.G 1552 with cable V.A.G 1551/3A.

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Important

During measurement and test drives, fault reader V.A.G

-> Indicated on display:

V.A.G

- 1) Appears alternately

-> If the display shows one of the messages, run through the fault finding procedure as described in the diagnostic wire 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 switching to positive

Note:

If the display remains blank:

=> Fault Reader Operating Instructions

- Switch on printer using the Print key (Warning lamp in switch illuminates).
- 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 side airbag

2.1 - Self-diagnosis of airbag system BTU (basic triggering unit) with side airbag

2.2 - Self-diagnosis in Guided Fault-finding via VAS 5051

This self-diagnosis system is dealt with in the Guided Fault-finding only.

3 - Self-diagnosis for convenience system

3.1 - Self-diagnosis for convenience system

3.2 - Function description

Measures for remedying commonly occurring faults on particular models

=> Technical Service Handbook

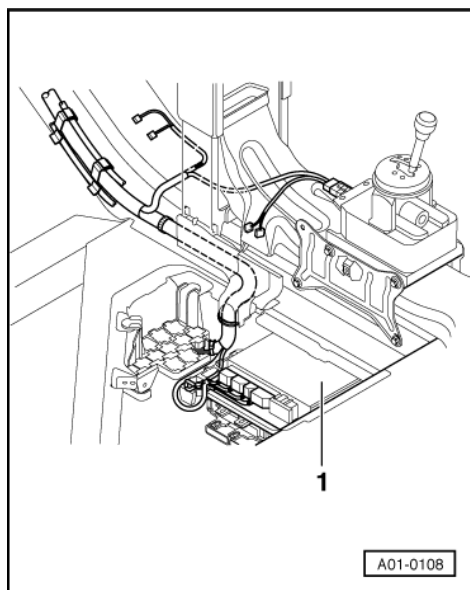
All the familiar convenience functions, interior lighting control, anti-theft alarm with interior monitoring (see system description => Page 4), operation of the central locking system (with key and/or radio-operated remote control), mirror (heating and adjustment) and electric window lifter, can be performed by means of the convenience system.

Central locking is performed via electric motors.

The lock units in the doors (door locks) have two electric motors each; the lock units for the tailgate and tank flap have only one.

The first motor locks the doors and the second activates the deadlock or lock isolating function ("SAFE" function). This means that when the door is locked from the outside (door lock, remote control) the vehicle is protected against theft and cannot be unlocked from the inside. The contact switches in the lock units inform the control unit of the status of the locks.

When the airbag control unit triggers, a signal is automatically sent to the convenience system central control unit to unlock the doors and switch on the interior lighting.





-> The convenience system central control unit -J393 is located in an electronics box (in false floor) in Position -1- at the front, under the driver's seat. It is equipped with a fault memory. The self-diagnosis connection point is located to the left beneath the trim under the steering wheel.

The control unit recognises faults and malfunctions in the convenience system (the convenience system includes central locking, anti-theft alarm, electric window lifters, radio-operated remote control, mirror) and stores them in a non-volatile memory.

To commence fault finding, initiate self-diagnosis and retrieve the stored information with fault reader V.A.G 1551.

System tester V.A.G 1552 can also be used.

All functions which have been carried out with the V.A.G 1551/1552 so far can also be carried out with the new tester VAS 5051 in operation mode "Vehicle self-diagnosis".

=> Operating Instructions for Vehicle Diagnostic, Testing and Information System VAS 5051

The fault information displayed indicates specific repair measures via a fault table, including information on the possible causes.

The fault memory also stores faults caused by temporary open circuits or loose contacts. These faults will appear on the display as sporadic faults "SP".

Note:

Before any replacement of a component, the fault memory must be erased, a functional test must be performed and the fault memory must be re-interrogated.

3.3 - Function display

Visual function display for the central locking system is via an LED in the top of the driver's door trim. Following locking, the LED flashes for 28 days and extinguishes if the lock has not been operated within this time period.

3.4 - System description of the anti-theft alarm with interior monitoring

Monitoring of the vehicle is via exterior protection (door contacts, luggage compartment switch, bonnet switch and glass-break sensors in the rear window) as well as interior monitoring (transmit/receive module for interior monitoring, radio contact and terminal 15). If unauthorised tampering with the vehicle is detected, the anti-theft alarm initiates the emission of an alarm signal, dependent on the country coding. In Great Britain, the alarm is emitted via an intelligent backup horn. In the case of part numbers 8Z0 959 433 A/ D/ E/ F, the anti-theft alarm is achieved by means of hardware. It can be activated and deactivated via various codings. For deactivation of the anti-theft alarm from the convenience system central control unit -J393 to be accepted, however, all the anti-theft alarm confirmations (anti-theft alarm confirmation via flashing and anti-theft alarm confirmation via horn) must be reset.

If the vehicle is unlocked manually via the driver's side lock cylinder only the driver door opens and all other doors, the luggage compartment lid and the tank flap remain locked. Once the driver's door has been opened, the key must be placed in the ignition lock and the ignition switched on within 15 seconds in order to deactivate off the anti-theft alarm, otherwise the alarm will be triggered.

When the ignition is switched on, the other doors, the tailgate and the tank flap are unlocked.

In order to provide increased anti-theft protection, the anti-theft alarm is only deactivated when the vehicle is unlocked using the standard radio-operated remote control.

The interior monitoring system is a component of the anti-theft alarm system. The system consists of a transmit/receive module -G303 for interior monitoring, which is located in the front interior light, behind the grille.

The transmit/receive module for interior monitoring works according to the ultrasonic principle. When the system is activated and a movement is detected within the passenger compartment, an alarm signal is emitted via the anti-theft warning system.

The interior sensors can be switched off via a switch in the B-pillar/door sill on the driver's side. The interior monitoring should be switched off before locking, if an alarm might be triggered through animals or movable objects in the vehicle interior. For this purpose, the ignition key must be removed from the ignition switch after switching off and the driver's door must be open. The switch must then be actuated and the vehicle locked. With interior monitoring switched off, the LED illuminates if the driver's door is open, but only for up to max. 10 minutes. If the driver's door is closed and re-opened without activation of the anti-theft alarm, the LED will illuminate again.

The sensors are reactivated when the vehicle is next locked.

For all tests, it should be remembered that the system requires a waiting time of at least 30 seconds when the vehicle is locked.

3.5 - Initiating self-diagnosis for the convenience system

Test requirements:

- ◆ Voltage supply and fuses for the relevant systems OK
- ◆ In order to initiate self-diagnosis, "terminal 15 on" is required (switch on ignition) and the vehicle must be unlocked.

Notes:

- ◆ If the display remains blank, check voltage supply to V.A.G 1551 according to current flow diagram.

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

- ◆ Depending on the program, additional operating information can be printed out by pressing the HELP key of V.A.G 1551.
- ◆ The ⇒ key is used to continue the with programme sequence.
- ◆ The PRINT key is used to switch on the printer (indicator lamp in key illuminates).
- ◆ Connecting fault reader => Page 1
- Switch ignition on.
- Switch on printer with the Print key (indicator lamp in key illuminates).
- Press key -1- for "Rapid data transfer" operating mode.

-> Indicated on display:

Rapid data transfer HELP
Enter address word xx

Address word for convenience system: 46

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-> Indicated on display:

Rapid data transfer HELP
Enter address word xx

- Press keys -4- and -6-.

-> Display after address word 46 has been entered:

Rapid data transfer Q
46 Central module - convenience system

- Confirm entry with Q key.



The following display will then appear:

-> is displayed briefly

Rapid data transfer Tester sends address word 46

The following display will then appear:

-> Control unit identification V.A.G 1551 for the convenience system central control unit -J393 (convenience unit) is displayed, e.g.:

8Z0959433	Convenience unit	T01
01A2	"	
Coding	04672	WSC 02313

At this point, it is possible to move on to the option "Rapid data transfer, select function" using the C key.

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- Press =>key.

-> is displayed briefly

Please wait

The following display will then appear:

-> The display on fault reader V.A.G 1551 shows the control unit identification code for the driver's side door control unit e.g.:

8Z1959801	Door control unit DS	BRM
5.90	"	

- Press =>key.

-> is displayed briefly

Please wait

The following display will then appear:

-> The display on fault reader V.A.G 1551 shows the control unit identification code for the passenger-side door control unit e.g.:

8Z1959802	Door control unit PS	BRM
5.90	"	

- Press =>key.

-> is displayed briefly

Please wait

The following display will then appear:

-> The display on fault reader V.A.G 1551 shows the control unit identification code for the rear-left door control unit (if installed) e.g.:

8Z1959801A	Door control unit RL	
BRM 5.90	"	

- Press =>key.

-> is displayed briefly

Please wait

The following display will then appear:

-> The display on fault reader V.A.G 1551 shows the control unit identification code for the rear-right door control unit (if installed) e.g.:

8Z1959802A Door control unit RR BRM 5.90 "

- Press ⇒ key.

-> Indicated on display:

Rapid data transfer HELP Select function XX

Note:

- ◆ In the case of systems without electric rear window lifters, the convenience system central control unit -J393 performs central locking for the rear doors. Accordingly, only the two front door control units are displayed.

Self-diagnosis functions

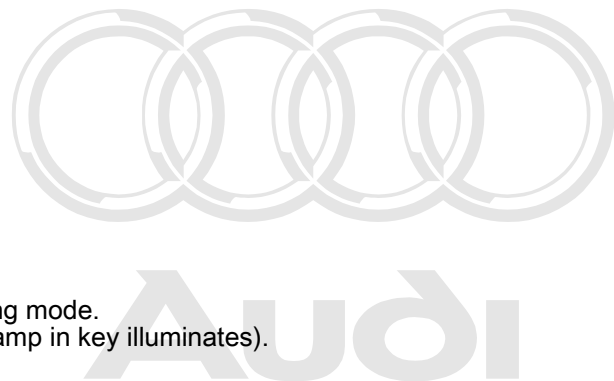
	Page
01 - Interrogate control unit version	29
02 - Interrogate fault memory	
03 - Final control diagnosis	
05 - Erase fault memory	
06 - End output	
07 - Encode control unit	
08 - Read measured value block	
10 - Adaption	

Notes:

- ◆ A list of the possible functions is printed out after pressing the HELP key:
- ◆ Further functions which are printed out after pressing the HELP key can be ignored.
- ◆ After ending the function, V.A.G 1551 returns to the following initial setting:

-> Indicated on display:

Rapid data transfer HELP Select function XX



3.6 - Interrogating control unit version

- Connect the fault reader => Page 5 .
- Switch ignition on.
- Press key -1- for "Rapid data transfer" operating mode.
- Switch on printer with the Print key (indicator lamp in key illuminates).
- Press keys -0- and -1-.

-> Indicated on display:

Rapid data transfer Q 01 - Interrogate control unit version

- Confirm entry with Q key.

-> Control unit identification for the convenience system central control unit -J393 is displayed on fault reader V.A.G 1551, e.g.:

8Z0959433 Convenience unit TXX XXYY Coding 004672 WSC 02313

Explanation of the display

- ◆ 8Z0959433 = part number of control unit (for current control unit version, see parts catalogue)
- ◆ Convenience unit = system designation
- ◆ TXX = manufacturer's identification
- ◆ XXYY = data level
- ◆ Coding 04672 = coding version

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- ♦ WSC 02313 = workshop code1)

1)Stored automatically in control unit in the event of system intervention.

- Press ⇒ key.

-> is displayed briefly

Please wait

The following display will then appear:

-> The display on fault reader V.A.G 1551 shows the control unit identification code for the driver-side door control unit e.g.:

8Z1959801 Door control unit DS BRM
5.90 □

- Press ⇒ key.

-> is displayed briefly

Please wait

The following display will then appear:

-> The display on fault reader V.A.G 1551 shows the control unit identification code for the passenger-side door control unit e.g.:

8Z1959802 Door control unit PS BRM
5.90 "

- Press ⇒ key.

-> is displayed briefly

Please wait

The following display will then appear:

-> The display on fault reader V.A.G 1551 shows the control unit identification code for the passenger-side door control unit e.g.:

8Z1959802 Door control unit PS BRM
5.90 "

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- Press ⇒ key.

-> is displayed briefly

Please wait

The following display will then appear:

-> The display on fault reader V.A.G 1551 shows the control unit identification code for the rear-left door control unit (if installed) e.g.:

8Z1959801A Door control unit RL
BRM 5.90

- Press ⇒ key.

-> is displayed briefly

Please wait

The following display will then appear:

-> The display on fault reader V.A.G 1551 shows the control unit identification code for the rear-right door control unit (if installed) e.g.:

8Z1959802A Door control unit BR
BRM 5.90 "

- Press ⇒ key.

Note:

- ♦ In the case of systems without electric rear window lifters, the convenience system central control unit -J393 performs central locking for the rear doors. Accordingly, only the two front door control units are displayed.

Notes:

⬆
Rapid data transfer HELP
Control unit not responding!

-> If one of the following fault messages appears on the display, the possible causes of the fault can be printed out via the HELP key.

⬆
Rapid data transfer HELPK
K-wire not switching to positive!

-> Ignition must be switched on.

⬆
Rapid data transfer
No signal from control unit!

-> Malfunctions have occurred at the start of or during the program (external sources of fault?).

⬆
Rapid data transfer
Communication problem

-> Check the diagnostic wires, power supply and earth connections.

- Press ⇒ key.
- Press keys -0- and -6- to end output.

-> Indicated on display:
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Rapid data transfer Q
06 End output

- Confirm entry with Q key.

-> Indicated on display:

Rapid data transfer HELP
Enter address word XX

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

Control unit versions (for current control unit versions, see parts catalogue)

Control unit- part number	Index	Version	Notes
8Z0 959 433	-	ROW	ROW, 433 MHz radio-operated remote control, electric rear window lifters, CL or SCL
8Z0 959 433	A	ROW, ATA	ROW, 433 MHz radio-operated remote control, electric rear window lifters, anti-theft alarm with interior monitoring, CL or SCL



Control unit- part number	Index	Version	Notes
8Z0 959 433	B	315 MHz	315 MHz radio-operated remote control, electric rear window lifters, anti-theft alarm with interior monitoring, CL or SCL
8Z0 959 433	C	ROW with rear CL	ROW, 433 MHz radio-operated remote control, mechanical rear window lifters, CL or SCL
8Z0 959 433	D	ROW, ATA, rear CL	ROW, 433 MHz radio-operated remote control, mechanical rear window lifters, anti-theft alarm, CL or SCL
8Z0 959 433	E	ROW, ATA with sounder,	ROW, 433 MHz radio-operated remote control, rear electric window lifters, anti-theft alarm with intelligent backup horn, CL or SCL
8Z0 959 433	F	ROW, ATA with sounder, rear CL	ROW, 433 MHz radio-operated remote control, rear mechanical window lifters, anti-theft alarm with intelligent backup horn, CL or SCL
8Z0 959 433	G	ROW without remote control	ROW, without remote control, electric rear window lifters
8Z0 959 433	H	ROW without remote control, rear CL	ROW, without remote control, mechanical rear window lifters ¹⁾

1) Standard equipment

Control unit versions, door control units (for current control unit versions, see parts catalogue)

Vehicle equipment	Code number
Door control unit, driver LHD ¹⁾	8Z1 959 801
Door control unit, driver RHD ²⁾	8Z1 959,802
Door control unit, passenger LHD ¹⁾	8Z1 959 802
Door control unit, passenger RHD ²⁾	8Z1 959 801
Door control unit, rear left	8Z1 959 801 A
Door control unit, rear right	8Z1 959 802 A

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1) LHD ⇒ left-hand drive

2) RHD ⇒ right-hand drive

3.7 - Encoding control unit for convenience system using fault reader V.A.G 1551

Notes:

- ♦ The control unit is pre-coded in accordance with the vehicle equipment at the factory.
- ♦ Encoding is carried out using fault reader V.A.G 1551.

- Connect the fault reader => Page 5 .

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

- Press keys -0- and -7- (the function "Encode control unit" is selected with 07).

-> Indicated on display:

Rapid data transfer	Q
07 Encode control unit	

- Confirm entry with Q key.

-> Indicated on display:

Encode control unit	Q
Enter code number	XXXXX (0-32767)

- Enter 5-digit control unit code in with table. Fill empty spaces with 0 (Example: 04672).
- Standard code =>Page 13
- Enter the code number according to the coding table => Page 12

-> Indicated on display:

Encode control unit	Q
Enter code number	04672 (0-32767)

- Confirm entry with Q key.

-> The control unit identification number is displayed with the relevant letter index, the code number (e.g. 04672) and the Workshop Code (Dealership No.).

8Z0959433	Convenience unit	T01
01A2		
Coding	04672	WSC 02313

This display indicates that the encoding procedure has been completed.

Once encoding has been completed, the door control units are called and displayed.

-> Indicated on display:

ERROR	□
Coding 04682 not accepted	

In this case, the control unit has not been encoded with the data required for the vehicle. A check must then be completed to determine if the correct control unit for the vehicle has been installed (compare Part No. and letter index), or whether an incorrect code number has been entered.

- Repeat encoding.

If the control unit cannot be encoded, (correct control unit, correct code number), the control unit is defective.

End function:

- Press ⇒ key.

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

- Press keys -0- and -6- to end output.

-> Indicated on display:

Rapid data transfer	Q
06 End output	

- Confirm entry with Q key.

-> Indicated on display:

Rapid data transfer	HELP
Enter address word XX	

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



Encoding table overview

Vehicle equipment	Code number
Deactivate anti-theft alarm with deliberate deadlock release	1
Confirmation of anti-theft alarm via flashing	2
Security central locking (SCL)	4
Anti-theft alarm with interior monitor	8
Tailgate locking via speed	16
CL via speed	32
Convenience function via remote control	64
RHD	128
Not occupied	256
Confirmation of remote control locking via flashing	512
Confirmation of anti-theft alarm via horn	1024
Terminal 87 USA door logic	2048
Confirmation of remote control unlocking via flashing	4096
Ignore	8192
Remote CL function with SCL selected	16384

Coding table:

Equipment	Priority
Deactivate anti-theft alarm with deliberate deadlock release The anti-theft alarm is deactivated when deadlock is released deliberately.	1
Confirmation of anti-theft alarm via flashing When all doors and the tailgate are closed and locked via the lock cylinder or radio-operated remote control, this is confirmed via the hazard warning lamps. Subsequent closing of a door or of the tailgate is confirmed subsequently only if the vehicle exterior is fully closed.	2
Security central locking (SCL) In the case of selective central locking (SCL) only the driver's door and the tank flap are unlocked upon the first unlocking command and the deadlock is released for the remaining doors. If a second unlocking command is issued within two seconds, the remaining doors are unlocked and the tailgate is released for unlocking.	4
Anti-theft alarm with interior monitor The anti-theft alarm is activated.	8
Tailgate locking via speed Above a speed of 5 km/h, tailgate unlocking is blocked via soft-touch. Only below a speed of 5 km/h can the tailgate be unlocked again, provided the unlock switch has been actuated and at least one of the front doors has been opened.	16

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Equipment	Priority
Central locking via speed The doors are locked above a speed of 10 km/h. Below a speed of 10 km/h, the doors can be unlocked either by removing the ignition key (terminal 15 off and S-contact off), or by actuating the unlock switch.	32
Convenience function via remote control Simultaneous closing or opening of all the windows by pressing and holding the appropriate button on the radio-operated remote control. The convenience function can always be performed via the lock cylinder. The sun roof cannot be convenience-opened or closed via remote control. Fundamentally, the sun roof cannot be convenience-opened, and can only be convenience-closed via the lock cylinder.	64

Equipment	Priority
Right-hand drive If installed, right-hand drive must be encoded.	128
Not occupied	256
Confirmation of remote control locking via flashing If all the doors, including the tailgate are closed, locking is confirmed via the hazard warning lamps upon a remote control locking command.	512
Confirmation of anti-theft alarm via horn1) Additional confirmation via alarm horn -H12.	1024

1) No longer permissible under German law.

Equipment	Priority
Terminal 87 Door logic As soon as any door is opened when "terminal 15 off", no window lifters can be actuated.	2048
Confirmation of remote control unlocking via flashing Unlocking via remote control is confirmed by the hazard warning lamps flashing twice.	4096
Ignore	8192
Remote CL function with SCL selected When unlocking via remote control, the complete vehicle is unlocked. When unlocking via the door lock cylinder, the SCL function is activated.	16384

Standard code

In some cases, country-specific codes deviate from the standard code; this coding is not described individually here, the codes can be determined and entered in accordance with the encoding table overview => Page 12.

Standard code for vehicles without anti-theft alarm and without remote control

Standard code = 02048

The standard code is the sum total of the following:	
- Terminal 87 Door logic	+ 2048
Total (Code):	= 02048

Standard code for vehicles without anti-theft alarm and with remote control

Standard code = 06720

The standard code is the sum total of the following:	
- Confirmation of remote control unlocking via flashing	+ 4096
- Terminal 87 Door logic	+ 2048
- Confirmation of remote control locking via flashing	+ 512
- Convenience function via remote control	+ 64
Total (Code):	= 06720

**Standard code for vehicles with anti-theft alarm and without remote control**

Standard code = 02058

The standard code is the sum total of the following:	
- Terminal 87 Door logic	+ 2048
- Anti-theft alarm with interior monitor	+ 8
- Confirmation of anti-theft alarm via flashing	+ 2
Total (Code):	= 02058

Standard code for vehicles with anti-theft alarm and with remote control

Standard code = 06730

The standard code is the sum total of the following:	
- Confirmation of remote control unlocking via flashing	+ 4096
- Terminal 87 Door logic	+ 2048
- Confirmation of remote control locking via flashing	+ 512
- Convenience function via remote control	+ 64
- Anti-theft alarm with interior monitor	+ 8
- Confirmation of anti-theft alarm via flashing	+ 2
Total (Code):	= 06730

3.8 - Interrogating fault memory**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.

- Connect the fault reader => Page 5.
- Switch on printer with the Print key (indicator lamp in key illuminates).

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

- Press keys -0- and -2- (use 02 to enter function "Interrogate fault memory").

-> Indicated on display:

Rapid data transfer	Q
02 - Interrogate fault memory	

- Press the Print key.
- Confirm entry with Q key.

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

X faults recognised

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

Note:

If a fault was detected:

- ◆ . Remedy fault.
- ◆ . Erase fault memory (function 05)
- ◆ . Perform functional check.
- ◆ . Interrogate fault memory again (function 02)
- The fault printed out can be remedied according to the fault table, => from Page 38 .
- The functions "Read measured value block" => Page 18 , can be used as aids.

The measured value block is divided into 17 display group numbers. For the allocations of the individual display groups, please refer to the display group overview beginning on Page 18 .

The display "No fault detected" causes the program to return to the original status after pressing the →key.

No fault recognised

-> Indicated on display:

Rapid data transfer HELP
 Select function XX

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If something else is displayed:

=> Fault Reader Operating Instructions

- Press keys -0- and -6- to end output.

-> Indicated on display:

Rapid data transfer Q
 06 End output

- Confirm entry with Q key.

-> Indicated on display:

Rapid data transfer HELP
 Enter address word XX

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

3.9 - Erasing fault memory

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.

- Connect the fault reader => Page 5 .

Preconditions:

- ◆ Fault was remedied
- ◆ Functional test was performed
- ◆ Fault memory was interrogated again

-> Indicated on display:



Rapid data transfer HELP
Select function XX

- Press keys -0- and -5- (use 05 to enter function "Erase fault memory").

-> Indicated on display:

Rapid data transfer Q
05 Erase fault memory

- Confirm entry with Q key.

-> Indicated on display:

Rapid data transfer
Fault memory has been deleted

- Press ⇒ key.

-> Indicated on display:

Rapid data transfer HELP
Select function XX

Notes:

Warning
Fault memory not interrogated

- > This display indicates a fault in the test sequence.
 - ♦ Observe test sequence exactly: First interrogate fault memory then erase it.
- Press keys -0- and -6- to end output.

-> Indicated on display:

Rapid data transfer Q
06 End output

- Confirm entry with Q key.

-> Indicated on display:

Rapid data transfer HELP
Enter address word XX

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

3.10 - End of output

- Press keys -0- and -6- to end output.

-> Indicated on display:

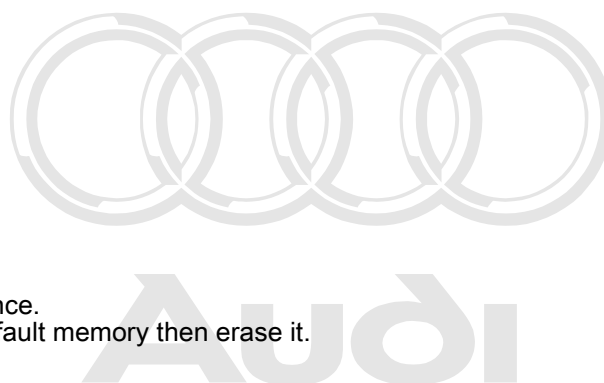
Rapid data transfer Q
06 End output

- Confirm entry with Q key.

-> Indicated on display:

Rapid data transfer HELP
Enter address word XX

- Switch off ignition.



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- Disconnect connectors for fault reader V.A.G 1551.

3.11 - Final control diagnosis

Step	Display on tester	Reaction
	Activate alarm triggering1)	- Triggering of acoustic and visual alarm
	Activate interior monitoring1) 2)	- Interior monitoring is activated (IM is activated following a waiting time of 30 seconds)
	Simulate crash signal3)	- Unlock and switch on interior lighting
	Warning lamp CL deadlock -K133	- "Deadlock"-LED illuminates
	Signal for locking CL	- All doors are locked, but not deadlocked
	Activation of deadlocking of doors	- All doors are deadlocked
	Signal for unlocking central locking system	- Unlock all doors
	END	- Message: Final control diagnosis ended successfully

1) Only if equipped with anti-theft alarm.

2) If an alarm is reported by the interior sensor when the interior monitoring is activated, an alarm is triggered and an entry is made in the fault memory (1370; Alarm from interior monitoring).

3) An entry is made in the fault memory (1366; Opening via crash signal).

Procedure

- Connect the fault reader => Page 5 .

-> Indicated on display:

Rapid data transfer HELP
 Select function XX

- Operate fault reader, taking into account the information on the display:
- Enter 03 for function "Final control diagnosis".
- "Switch off" the ignition and remove the ignition key from the ignition lock.

-> Indicated on display:

Rapid data transfer Q
 03 - Final control diagnosis

- Confirm entry with Q key.

-> Indicated on display:

Final control diagnosis

Keying through individual tests: see table on Page 17 .

Final control diagnosis can be terminated by pressing the "C" key.

- Press => key.

If a part does not work:

- Continue final control diagnosis to the end.



3.12 - Reading measured value block

Performing function "Read measured value block"

-> Indicated on display:

Rapid data transfer HELP
Select function XX

- Press keys -0- and -8- (08 selects function "Read measured value block").

-> Indicated on display:

Rapid data transfer Q
08 - Read measured value block

- Confirm entry with Q key.

-> Indicated on display:

Read measured value block HELP
Enter display group number XXX

- Enter display group number (see table => Page 18) and confirm entry with Q key.

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

Summary of display groups:

Display group no.	Indicated on display
001	1 = Key switch, driver's side 2 = CL interior switch 3 = Feedback signal, driver's side lock 4 = Feedback signal, driver's side lock
002	1 = Key switch, driver's side 2 = Key switch, passenger's side 3 = Feedback signal, passenger's side lock 4 = Feedback signal, passenger's side lock
003	1 = Feedback signal, rear right lock 2 = Feedback signal, rear right lock 3 = Feedback signal, rear left lock 4 = Feedback signal, rear left lock
004	1 = Door contact switch, driver's side 2 = Door contact switch, passenger's side 3 = Door contact switch, rear right 4 = Door contact switch, rear left

Display group no.	Indicated on display
005	1 = Switch for tank flap unlocking 2 = Contact switch, tailgate 3 = Soft touch function for tailgate release 4 = Bonnet contact switch
006	1 = Interior light 2 = Release for window lifters 3 = Automatic opening/closing 4 = Luggage compartment light

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Display group no.	Indicated on display
007	1 = Key from matched position 2 = Remote command 3 = Matched keys in position 4 = Vacant measured value block
008	1 = Road speed signal 2 = Immobiliser key recognised 3 = Rear window heating 4 = Vacant measured value block

Display group no.	Indicated on display
009	1 = Code 2 = Code 3 = Code 4 = Code
010	1 = Door contact switch, driver's side 2 = Switch for interior monitoring 3 = Handbrake 4 = Reversing light
011	1 = Window lifter switch, driver's side 2 = Window lifter thermal protection, driver's side 3 = Childproof lock switch 4 = Vacant measured value block
012	1 = Window lifter switch, driver's side for passenger's side 2 = Window lifter switch, driver's side for rear right 3 = Window lifter switch, driver's side for rear left 4 = Vacant measured value block

Display group no.	Indicated on display
013	1 = Mirror adjustment switch 2 = Mirror selection switch 3 = Mirror release switch 4 = Mirror heater
014	1 = Window lifter switch, passenger's side 2 = Window lifter thermal protection, passenger's side 3 = Vacant measured value block 4 = Vacant measured value block
015	1 = Window lifter switch, rear right 2 = Window lifter thermal protection, rear right 3 = Window lifter switch, rear left 4 = Window lifter thermal protection, rear left
016	1 = Vehicle voltage, terminal 30 2 = Ignition 3 = S contact 4 = Bus status
017	1 = Door control unit, driver's side 2 = Door control unit, passenger's side 3 = Door control unit, rear left 4 = Door control unit, rear right



Measured value block 001

Read measured value block				⇒	◀ Indicated on display
Not actuated	Not actuated	Unlocked	Not deadlocked		
					Feedback signal, lock, driver's side ▪ Deadlocked ▪ Not deadlocked
					Feedback signal, lock, driver's side ▪ Locked ▪ Unlocked
					CL interior switch ▪ Lock ▪ Unlock ▪ Not actuated
					Key switch, driver's side ▪ Open ▪ Closed ▪ Not actuated

Measured value block 002

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Read measured value block				⇒	◀ Indicated on display
Not actuated	Not actuated	Unlocked	Not deadlocked		
					Feedback signal, lock, passenger's side ▪ Deadlocked ▪ Not deadlocked
					Feedback signal, lock, passenger's side ▪ Locked ▪ Unlocked
					Key switch, passenger's side ▪ Open ▪ Closed ▪ Not actuated
					Key switch, driver's side ▪ Open ▪ Closed ▪ Not actuated

Measured value block 003

Read measured value block				⇒	◀ Indicated on display
Unlocked	Not deadlocked	Unlocked	Not deadlocked		
					Feedback signal, lock, rear left ▪ Deadlocked ▪ Not deadlocked
					Feedback signal, lock, rear left ▪ Locked ▪ Unlocked

	Feedback signal, lock, rear right
	▪ Deadlocked
	▪ Not deadlocked
Feedback signal, lock, rear right	
▪ Locked	
▪ Unlocked	

Measured value block 004

Read measured value block				⇒	▪ Indicated on display
Door open	Door open	Door closed	Door closed		
					Door contact switch, rear left
					▪ Door open
					▪ Door closed
					Door contact switch, rear right
					▪ Door open
					▪ Door closed
					Door contact switch, passenger's side
					▪ Door open
					▪ Door closed
					Door contact switch, driver's side
					▪ Door open
					▪ Door closed

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Measured value block 005

Read measured value block				⇒	▪ Indicated on display
Not actuated	Lid closed	Not actuated	Not installed		
					Bonnet contact switch1)
					▪ Lid open
					▪ Lid closed
					▪ Not installed
					Soft touch for tailgate release
					▪ Actuated
					▪ Not actuated
					Contact switch for tailgate
					▪ Tailgate open
					▪ Tailgate closed
					Switch for tank flap unlocking
					▪ Actuated
					▪ Not actuated

1) Only for vehicles equipped with anti-theft alarm.

Measured value block 006

Read measured value block	⇒	▪ Indicated on display
---------------------------	---	------------------------



On	Relay ON	Not actuated	Off
			Luggage compartment light ▪ On ▪ Off
			Automatic open/close function1) ▪ Open ▪ Closed ▪ Not actuated
		Release for window lifters2) ▪ Relay ON ▪ Relay OFF	
Interior light ▪ On ▪ Off			

1) The sun roof is not actuated via the automatic open function.

2) Relay ON: Logic relay is activated by terminal 15 and supplies power to sun roof and window lifter logic. Simultaneously, the release signal is sent to the door electronics via the Group convenience data bus.

Measured value block 007

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Read measured value block			⇒	Indicated on display
0	0	1 1 0 0		
				Vacant measured value block
				Matched keys in position (1st/ 2nd/ 3rd/ 4th memory position) ▪ 0: Not occupied ▪ 1: Occupied
				Remote control command ▪ 0: No remote control command ▪ 1: Unlock ▪ 2: Lock ▪ 3: Tailgate
				Key from matched position ▪ 0: No key was matched ▪ 1,2,3,4: The number indicates the memory location for the matched key

Measured value block 008

Read measured value block			⇒	Indicated on display
0 km/h	Yes	Off		
				Vacant measured value block
				Rear window heating1) ▪ On ▪ Off
				Immobiliser key recognised ▪ Yes ▪ No2) ▪ No communication3)

Speed signal4) ▪ Value ▪ No communication3) ▪ No measured value
--

1) If "Off" is displayed despite the rear window heating being switched on, adaption for "Air conditioner not fitted" has been performed although an air conditioner has been installed. Check adaption channel 60, Adjusting a fitted operating and display unit for air conditioner -E87 => Page **32** .

2) Key was not correctly adapted to the dash panel insert and therefore not to the immobiliser.

=> Electrical System; Repair group 01; Immobiliser Self-diagnosis - Immobiliser III Immobiliser Self-diagnosis - Immobiliser III

3) No communication from dash panel insert to central control unit for convenience system; check data exchange => Page **35** .

4) Current value is only displayed when terminal 15 is on.

Measured value block 009

Read measured value block			⇒	Indicated on display
0 0 1 1	0 0 1 0	0 0 0 0	0 0	
				Coding ▪ 01: Rear locking via speed ▪ 10: Right-hand drive
				Coding ▪ 0001: Deactivate anti-theft alarm with deliberate deadlock release1) ▪ 0010: Confirmation of anti-theft alarm via flashing1) ▪ 0100: SCL active ▪ 1000: Anti-theft alarm active1)
				Coding ▪ 0001: Central locking via speed ▪ 0010: Convenience function via remote control2) ▪ 0100: Confirmation of anti-theft alarm via horn1) 3) ▪ 1000: Terminal 87 Door logic
				Coding ▪ 0001: Confirmation of remote control locking via flashing ▪ 0010: Confirmation of remote control unlocking via flashing ▪ 0100: No deadlock function ▪ 1000: Remote control CL function with SCL selected3)

1) Only for vehicles equipped with anti-theft alarm.

2) All the available convenience functions can also be performed via remote control.

3) No longer permissible under German law.

Measured value block 010

Read measured value block				⇒	Indicated on display
Door open	Not installed	Not actuated	Not actuated		
					Reversing light ▪ On ▪ Off



		Handbrake ▪ Actuated ▪ Not actuated
		Switch for interior monitoring1) ▪ Actuated ▪ Not actuated ▪ Not installed
	Door contact switch, driver's side ▪ Door open ▪ Door closed	

1) Only for vehicles equipped with anti-theft alarm.

Measured value block 011

Read measured value block			⇒	◀ Indicated on display
Not actuated	No	On		
				Vacant measured value block
				Child safety lock switch ▪ Off ▪ On
				Window lifter thermal protection, driver's side ▪ Yes ▪ No ▪ Not installed
				Window lifter switch, driver's side ▪ Automat. open ▪ Automat. close ▪ Man. open ▪ Man. close ▪ Not actuated

Measured value block 012

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Read measured value block			⇒	◀ Indicated on display
Not actuated	Not actuated	Not actuated		
				Vacant measured value block
				Window lifter switch, driver's side for rear left ▪ Automat. open ▪ Automat. close ▪ Man. open ▪ Man. close ▪ Not actuated ▪ Not installed
				Window lifter switch, driver's side for rear right ▪ Automat. open ▪ Automat. close ▪ Man. open ▪ Man. close ▪ Not actuated ▪ Not installed

Window lifter switch, driver's side for passenger's side
▪ Automat. open ▪ Automat. close ▪ Man. open ▪ Man. close ▪ Not actuated

Measured value block 013

Read measured value block		⇒	◀ Indicated on display
Not actuated	Right	Not installed	Off
			Mirror heater1) ▪ On ▪ Off
			Mirror release switch ▪ Released ▪ Engaged ▪ Not installed
			Mirror selection switch ▪ Left ▪ Right ▪ Fold down ▪ Not actuated
			Mirror adjustment switch ▪ Pos X + ▪ Pos X - ▪ Pos Y + ▪ Pos Y - ▪ Not actuated

1) If, nevertheless, "Off" is displayed after switching on the mirror heater via the rear window heating, adaption for "Air conditioner not fitted" has been performed although air conditioning has been installed. Check adaption channel 60, Adjusting a fitted operating and display unit for air conditioner -E87 => Page 32.

Measured value block 014

Read measured value block		⇒	◀ Indicated on display
Not actuated	No		
			Vacant measured value block
			Vacant measured value block
			Window lifter thermal protection, passenger's side ▪ Yes ▪ No ▪ Not installed
			Window lifter switch, passenger's side ▪ Automat. open ▪ Automat. close ▪ Man. open ▪ Man. close ▪ Not actuated



Measured value block 015

Read measured value block				⇒	Indicated on display
Not actuated	No	Not actuated	No		
					Window lifter thermal protection, rear left ▪ Yes ▪ No ▪ Not installed
					Window lifter switch, rear left ▪ Automat. open ▪ Automat. close ▪ Man. open ▪ Man. close ▪ Not actuated ▪ Not installed
					Window lifter thermal protection, rear right ▪ Yes ▪ No ▪ Not installed
					Window lifter switch, rear right ▪ Automat. open ▪ Automat. close ▪ Man. open ▪ Man. close ▪ Not actuated ▪ Not installed

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Measured value block 016

Read measured value block				⇒	Indicated on display
12.2 V	Terminal 15 ON	Actuated	Two-wire		
					Bus condition ▪ Single wire ▪ Two-wire
					S contact ▪ Actuated ▪ Not actuated ▪ No communication1)
					Ignition ▪ Terminal 15 ON ▪ Terminal 15 OFF ▪ No communication1)
					Vehicle voltage terminal 30 ▪ Voltage

1) No communication from dash panel insert to central control unit for convenience system; check data exchange => Page 35.

Measured value block 017

Read measured value block				⇒	◀ Indicated on display
Driver's door 1	Passenger's door 1	Door, RL 1	Door, RR 1		
					Door control unit, rear right
					▪ Door, RR 11)
					▪ Door, RR 02)
					▪ Not installed3)
					Door control unit, rear left
					▪ Door, RL 11)
					▪ Door, RL 02)
					▪ Not installed3)
					Door control unit, passenger side
					▪ Passenger's door 11)
					▪ Passenger's door 02)
					Door control unit driver's side
					▪ Driver's door 11)
					▪ Driver's door 02)

- 1) Detected or communication to central control unit available.
- 2) Not detected or no communication to central control unit.
- 3) For part numbers 8Z0 959 433 C/ D/ F/ H.

3.13 - Matching of radio-operated remote control keys

The vehicle is supplied with two radio-operated remote control keys.

If new or additional ignition keys are required they must be adapted to the immobiliser control electronics.

=> Electrical System; Repair group 01: Immobiliser Self-diagnosis - Immobiliser III Immobiliser Self-diagnosis - Immobiliser III

In addition, the radio-operated remote control keys must also be matched/adapted to the convenience system central control unit -J393.

Methods of matching radio-operated remote control keys:

- ◆ To match radio-operated remote control keys without a second key, the procedure is described further in adaption under channel 21. Matching of radio-operated remote control keys via adaption =>Page 29 .
- ◆ To match radio-operated remote control keys by using a second key, follow the following steps.

Matching procedure for new radio-operated remote control keys

- Unlock the vehicle from the outside via the driver's door lock.
- Switch on the ignition (using additional key).
- Check how many keys have already been matched in measured value block 007 => Read measured value block, Page 22 .

-> Indicated on display:

Read measured value block	7
0 0000 1100	



Display zone 3 shows how many radio-operated remote control keys have been matched and in which memory positions (2x in positions 1 and 2 in example shown).

- Lock vehicle from outside with the key to be adapted by way of the driver's door lock.
- Within 5 seconds press "unlock" key of radio-operated remote control key until next memory position is reached (3x in example).

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

- Wait 5 seconds.
- Then press "unlock" button on the radio-operated remote control key again. This unlocks the vehicle.
=>Key has been successfully matched.
- Switch off ignition and remove ignition key.
- Check function of new radio-operated remote control key.
- Check display zone 3 in measured value block 007. It must now contain an additional "1" (in example: 1110).

-> Indicated on display:

Read measured value block	7
0 0000 1110	

Notes:

- ♦ 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-operated remote control key already matched for this memory position will no longer function.
- ♦ If remote control locking or unlocking is actuated consecutively five times during the matching stage (within the 5 seconds), all the keys are "unmatched". In this case, the key matching procedure must be repeated.
- ♦ A maximum of four keys can be matched.
- ♦ The matching process must be completed within 30 seconds. If 30 seconds are exceeded the process must be repeated.

3.14 - Synchronising/re-matching of existing radio-operated remote control keys

Radio-operated remote control keys must be synchronised if the vehicle can no longer be unlocked or locked via remote control and the key data is already known to the vehicle (can be recognised by fault memory entry "00955 to 00958 - keys 1 to 4").

Method for synchronising radio-operated remote control keys for vehicles with data level up to "09xx" (see Note)

- Press a button on the radio-operated remote control key.

If the vehicle is neither locked nor unlocked:

- Lock and unlock the vehicle within 30 seconds the via driver's door lock.
- Then check the function of the re-matched radio-operated remote control key.

If the vehicle still cannot be locked or unlocked, the key must be re-matched/adapted.

New methods for synchronising radio-operated remote control keys for vehicles with data levels as of "10xx" (see Note; introduced from model year '03)

- If the vehicle is locked, unlock it with the key via the lock in the driver's door.
- Press the unlock button on the radio-operated remote control key (fault is stored).
- Insert the key in the ignition lock and switch on the ignition (valid immobiliser message).
- Switch off the ignition again and remove the ignition key.
- Press the unlocking or locking button on the radio-operated remote control key (command is executed).

If the vehicle still cannot be locked or unlocked, the key must be re-matched/adapted.

Notes:

- ♦ The data level of the convenience system central control unit can be established via the function "01 - Interrogate control unit version".
- ♦ Following replacement or disconnection of the battery during repair work requiring this, all the radio-operated remote control keys for the vehicle must be synchronised.
- ♦ When changing the battery of a radio-operated remote control key, only that particular key must be synchronised.
- ♦ If the synchronisation procedure is unsuccessful, matching of the radio-operated remote control key(s) to the convenience system central control unit must be performed.

3.15 - Adaption

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Adaption table:

Adaption channel	Adaption function
21	Matching of radio-operated remote control keys via adaption =>Page 29
60	Adjusting a fitted operating and display unit for air conditioner -E87 => Page 32
61	Adaption of hardware from convenience system for central control unit -J393=>Page 33

Performing adaption (function 10)

-> Indicated on display:

Rapid data transfer HELP
 Select function XX

- Press keys -1- and -0- (10 selects function: "Adaption").
- Confirm entry with Q key.

-> Indicated on display:

Rapid data transfer Q
 10 - Adaption

- Confirm entry with Q key.

-> Indicated on display:

Adaption
 Enter channel number XX

- Enter required channel number (see adaption table => Page 29).
- Confirm entry with Q key.

Note:

After adapting one of the displays or exiting a particular channel, the adaption function (function 10) must be selected again before next adaption channel can be entered.

Matching of radio-operated remote control keys through adaption

-> Indicated on display:

Rapid data transfer HELP
 Select function XX



- Press keys -1- and -0- (10 selects function: "Adaption").

-> Indicated on display:

Rapid data transfer	Q
10 - Adaption	

- Confirm entry with Q key.

-> Indicated on display:

Adaption
Enter channel no. XX

- Press keys -2- and -1- (21 selects "Channel 21".)

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- ♦ Incorrect entries can be corrected after pressing the C key.

- Confirm entry with Q key.

-> Indicated on display:

Channel 21	Adaption	0
Key	setting	

The selected channel and the memory position for the key being matched are displayed in the top line. Select the desired memory position of the key being matched using keys -1- and -3- (or on V.A.G 1552 using keys ↓ and ↑).

-> Indicated on display:

Channel 21	Adaption	3
Key	setting	

- Press the button for remote control unlocking or locking for at least two seconds.

The display "setting" changes after recognising a remote command to "recognised".

-> Indicated on display:

Channel 21	Adaption	3	Q
Key	recognised		

- Confirm entry with Q key.

-> Indicated on display:

Channel 21	Adaption	3	Q
Store changed value?			

- Confirm entry with Q key.

-> Indicated on display:

Channel 21	Adaption	3
Changed value is stored?		

- Press ⇒key.

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

- Press ⇒key.

Notes:

- ◆ Successful adaption can be determined by reading measured value block (function 08), display group number 007 => Page 22 .
- ◆ Make sure new keys are always matched to vacant memory positions. If use is made of occupied memory positions, the radio-operated remote control key already matched for this memory position will no longer function.
- ◆ A maximum of four keys can be matched.

Deleting the memory positions of all previously matched radio-operated remote control keys

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

- Press keys -1- and -0- (10 selects function: "Adaption").

-> Indicated on display:

Rapid data transfer	Q
10 - Adaption	

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- Confirm entry with Q key.

-> Indicated on display:

Adaption
Enter channel no. XX

- Press keys -2- and -1- (21 selects "Channel 21".)

Note:

- ◆ Incorrect entries can be corrected after pressing the C-key.
- Confirm entry with Q key.

-> Indicated on display:

Channel 21	Adaption	0
------------	----------	---

The selected channel and the memory position for the key being matched are displayed in the top line. Select the desired memory position of key being matched using keys -1- and -3- (or on V.A.G 1552 using keys ↓ and ↑).

- Press key -3- five times.

-> Indicated on display:

Channel 21	Adaption	5
------------	----------	---

- Press remote control unlock or lock button

-> Indicated on display:

Channel 21	Adaption	5	Q
Key	invalid		

- Confirm entry with Q key.

-> Indicated on display:

Channel 21	Adaption	5	Q
Store changed value?			



- Confirm entry with Q key.

-> Indicated on display:

Channel 21	Adaption	5
Changed value is stored		

- Press ⇒key.

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

- Press keys -0- and -6- (06 selects the function "End output").

Notes:

- ♦ It is possible to match radio-operated remote control keys without previously deleting the memory positions. However, it must be ensured that new keys are always matched to vacant memory positions.
- ♦ After deleting the memory positions, all the radio-operated remote control keys for the vehicle must be re-matched/re-adapted.

Adjusting a fitted operating and display unit for air conditioner -E87

The convenience system central control unit -J393 must be adapted to the operating and display unit for air conditioner -E87 (if fitted) via adaption channel 60:

Adaption value	Adjustment
00000	Air conditioner not fitted. If no air conditioner is fitted, the adjustment must be set to 0 (factory default)
00001	Air conditioner fitted. Necessary in order to be able to switch on the mirror heater together with the rear window heating via the operating and display unit for air conditioner - E87

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

- Press keys -1- and -0- (10 selects function: "Adaption").

-> Indicated on display:

Rapid data transfer	Q
10 - Adaption	

- Confirm entry with Q key.

-> Indicated on display:

Adaption
Enter channel no. XX

- Press keys -6- and -0- (60 selects "Channel 60".)

Note:

- ♦ Incorrect entries can be corrected after pressing the C-key.
- Confirm entry with Q key.

-> Indicated on display:

```
Channel 60      Adaption      0
AC customer service control unit
```

The selected channel and the currently active adaption value are displayed in the top line. You can select either the adaption value "0" (AC customer service control unit not fitted) or "1" (AC customer service control unit activated), using keys -1- and -3- (or on V.A.G 1552 using keys ↓ and ↑).

- Press key -3- (AC customer service control unit is activated in the example).

-> Indicated on display:

```
Channel 60      Adaption      1
AC customer service contr. unit
activat.
```

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- Confirm entry with Q key.

-> Indicated on display:

```
Channel 60      Adaption      1
Store changed value?
```

- Confirm entry with Q key.

-> Indicated on display:

```
Channel 60      Adaption      1
Changed value is stored
```

- Press ⇒key.

-> Indicated on display:

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

- Press keys -0- and -6- (06 selects the function "End output").
- Press ⇒key.

Adapting hardware of convenience system central control unit -J393

The hardware for the convenience system central control unit -J393 (with part numbers 8Z0 959 433 D/ F onwards; current control unit versions, see parts catalogue) can be adapted via adaption channel:

Overview of adaption values

Adaption value	Adjustment
00000	Without remote control, four door control units (recognisable by electric rear window lifters)
00001	Without remote control, mech. rear window lifter
00002	With remote control, four door control units (recognisable by electric rear window lifters)
00003	With remote control, mech. rear window lifter

Notes:

- ♦ In addition to adaption via adaption channel 61 the coding must be updated to the required status.



- ♦ Adaption to mechanical rear window lifters is only permitted if no rear door control units are fitted.

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

- Press keys -1- and -0- (10 selects function: "Adaption").

-> Indicated on display:

Rapid data transfer	Q
10 - Adaption	

- Confirm entry with Q key.

-> Indicated on display:

Adaption	
Enter channel no. XX	

- Press keys -6- and -1- (61 selects "Channel 61".)

Note:

- ♦ Incorrect entries can be corrected after pressing the C-key.
- Confirm entry with Q key.

-> Indicated on display:

Channel 61	Adaption	1
Control unit	Adaption	

- Select the desired adaption value using keys -1- and -3- (or on V.A.G 1552 using keys ↓ and ↑). Overview of adaption values => Page 33.

-> Indicated on display:

Channel 61	Adaption	3	Q
Control unit	Adaption		

- Confirm entry with Q key.

-> Indicated on display:

Channel 61	Adaption	3	Q
Store changed value?			

- Confirm entry with Q key.

-> Indicated on display:

Channel 61	Adaption	3
Changed value is stored		

- Press =>key.

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

- Press keys -0- and -6- (06 selects the function "End output").
- Press =>key.



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3.16 - Checking data exchange between control units

Notes:

- ◆ Data is exchanged between individual control units by means of a bus system.
- ◆ "CAN bus" is used to describe a system that transports and distributes data.
- ◆ The wires between the control units that are used to transfer the data are known as signal wires.
- ◆ These signal wires are used for serial transmission of data, i.e. data is sent to each of the connected control units in turn.

Checking the bus system

Proceed as follows when fault table stipulates checking of data exchange on bus.

- Check that multiple connectors for control units are properly seated.
- Connect the vehicle diagnosis, measurement and information system VAS 5051 or fault reader V.A.G 1551 => Page 1.
- Switch on ignition
- Switch on printer using the Print key (Warning lamp in switch illuminates).
- 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 start the automatic test sequence i.e. interrogation of fault memories of all vehicle systems with self-diagnosis capability in "Rapid data transfer" mode.

If a control unit answers with its identification, the number of faults stored or "No fault detected" appears on the display.

Any system faults stored will be displayed in sequence and printed out. The V.A.G 1551 will then transmit the next address word.

-> The automatic test sequence has ended when the following appears on the display:

V . A . G

If a fault relating to "Group data bus"...or "...no communication" is displayed:

- Check to make sure that the vehicle is fitted with the correct engine control units (part number and encoding).

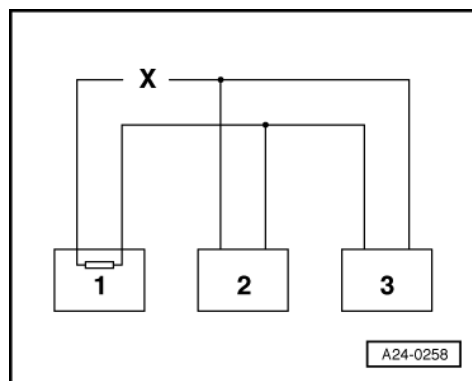
If the correct control units are installed, test the CAN data bus system.

Checking a "two-wire bus system"

The communication between three or more control units is carried out via a "two-wire bus system".

- Evaluate the faults stored in the control units.

This helps to locate wiring faults.



Example 1:

The faults stored in the fault memories indicate that control unit 1 does not communicate with control units 2 and 3.

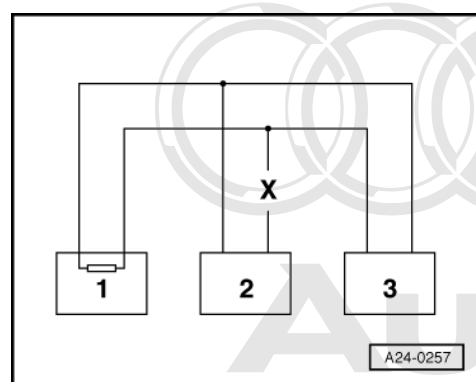
Control unit	Faults stored in fault memory
1	- No communication from control unit 2 - No communication from control unit 3
2	- No communication from control unit 1
3	- No communication from control unit 1

- Switch ignition off.
- Disconnect the control units which are linked by the bus wires and check whether there is an open circuit in one of the bus wires.

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

- If no fault can be detected in the bus wires, exchange control unit 1.

Example 2:



The faults stored in the fault memories indicate that control unit 2 does not communicate with control units 1 and 3.

Control unit	Faults stored in fault memory
1	- No communication from control unit 2
2	- No communication from control unit 1 - No communication from control unit 3
3	- No communication from control unit 2

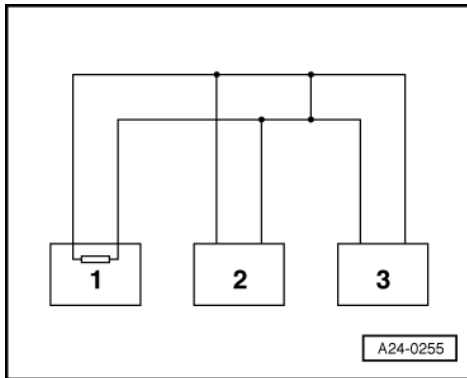
- Switch ignition off.
- Disconnect the control units which are linked by the bus wires and check whether there is an open circuit in one of the bus wires.

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

- If no fault can be detected in the bus wires exchange control unit 2.

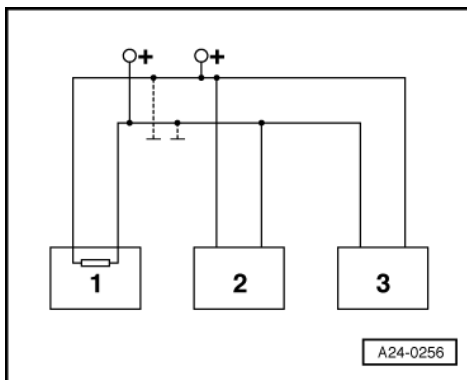
Example 3:

With the faults stored in the fault memories it can be seen that there is no sending or receiving operation possible in any of the control units.



Control unit	Faults stored in fault memory
1	- e.g. Group convenience data bus defective
2	- e.g. Group convenience data bus defective
3	- e.g. Group convenience data bus defective

- Switch ignition off.
- -> Disconnect the control units that are linked by the bus wires and check for a short circuit between the bus wires.



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

- -> Check bus wires for shorts to positive and earth as well as open circuit.

If the causes of the fault, e.g. "Group convenience data bus defective" cannot be found in bus wires, check whether one of the control units is responsible for the fault.

All the control units that communicate via the CAN data bus are still disconnected. Ignition is switched off.

- Connect one of the control units.
- Connect fault reader V.A.G 1551. Switch the ignition on and erase the fault memory of the control unit that has just been connected Terminate fault readout by selecting function 06 "End output".
- Switch the ignition off and then on again.
- Leave the ignition switched on for 10 seconds. Then interrogate the fault memory of the control unit that has just been connected, using the fault reader.
- If the fault "Group convenience data bus defective" is now read out, replace the control unit which has just been connected.
- If the fault "Group convenience data bus defective" is not read out, connect the next control unit and repeat the procedure.



4 - Fault table for convenience system

4.1 - Fault table for convenience system

Notes:

- ♦ The following table lists all faults that can be recognised by the convenience system central control unit and printed out using V.A.G 1551. The faults are listed in order according to their 5-digit code numbers.
- ♦ Fault codes appear only on print-out.
- ♦ Before replacing a component shown as faulty, check wiring and connectors to component as well as earth connections according to current flow diagram.
- ♦ Once repairs have been completed, the fault memory must always be interrogated again with fault reader V.A.G 1551 and erased. The vehicle must then be relocked (with key or remote control) and the fault memory re-interrogated.
- ♦ The fault memory records all static and sporadic faults.
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 only register as static faults if they still occur after testing.
- ♦ Sporadic faults which no longer occur after 50 opening cycles are erased automatically.
- ♦ Take care when repairing an open circuit caused by a data bus failure that the two signal wires for the respective BUS system are twisted together to avoid electromagnetic interference.

4.2 - Fault table; fault code 00000 - 01134

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
00000 No faults detected	If "No fault detected" appears after performing repairs, self-diagnosis is ended.	
00892 Release switch -F248, tailgate lock cyl. Implausible signal	- Fault in wiring or connectors - Release switch -F248 for tailgate lock cylinder defective	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check and if necessary replace release switch -F248 for tailgate lock cylinder => General Body Assembly, Exterior; Repair group 55; Tailgate Tailgate

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
00912 Switch -E40 for FL window lifter Implausible signal	- Fault in wiring or connectors	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Read measured value block; display group 011 => Page 24, Display zone 1

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
	- Installation of the switch NOK, sticks when operated - Switch -E40 for FL window lifter defective	- Check the switch - Replace the switch for window lifter and mirror adjustment => Electrical System; Repair group 96; Servicing switch Servicing switch

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
00913 Switch for FR driver's side window lifter -E81 Implausible signal	Fault in wiring or connectors - Installation of the switch NOK, sticks when operated - Switch for FR driver's side window lifter -E81 defective	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Read measured value block; display group 012 => Page 24 , Display zone 1 - Check the switch - Replace the switch for window lifter and mirror adjustment => Electrical System; Repair group 96; Servicing switch Servicing switch

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
00914 Switch -E53 for RL driver's side window lifter Implausible signal	- Fault in wiring or connectors - Installation of the switch NOK, sticks when operated - Switch -E53 for RL window lifter defective	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Read measured value block; display group 012 => Page 24 , Display zone 3 - Check the switch - Replace the switch for window lifter and mirror adjustment => Electrical System; Repair group 96; Servicing switch Servicing switch

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
00915 Switch -E55 for RR driver's window lifter		



Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
Implausible signal	- Fault in wiring or connectors - Installation of the switch NOK, sticks when operated - Switch -E55 for RR window lifter defective	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Read measured value block; display group 012 => Page 24, Display zone 2 - Check the switch - Replace the switch for window lifter and mirror adjustment => Electrical System; Repair group 96; Servicing switch Servicing switch

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Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
00932 Motor -V147 for driver's side window lifter	- Fault in wiring or connectors - Window lifter mechanism stiff1) - Motor -V147 for driver's side window lifter stiff or defective (CL relay adhesive, Hall sender defective) - Initialisation of automatic open/close function not performed	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check and ensure free movement of window lifter - Replace door control unit, driver's side -J386 => General Body Assembly, Exterior; Repair group 57; Central locking Central locking - Perform initialisation of automatic open/close function => General Body Assembly, Exterior; Repair group 57; Front door Front door
No or wrong setting		

1) The door window may also run stiffly in the window channel.

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
00933 Motor -V148 for passenger's side window lifter	- Fault in wiring or connectors - Window lifter mechanism stiff1) - Motor -V148 for passenger's side window lifter stiff or defective (CL relay adhesive, Hall sender defective)	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check and ensure free movement of window lifter - Replace door control unit, passenger's side -J387 => General Body Assembly, Exterior; Repair group 57; Central locking Central locking

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
No or wrong setting	- Initialisation for automatic open/close function not performed	- Perform initialisation for automatic open/close function => General Body Assembly, Exterior; Repair group 57; Front door Front door

1) The door window may also run stiffly in the window channel.

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
00934 Motor -V26 for RL window lifter	- Fault in wiring or connectors - Window lifter mechanism stiff ¹⁾ - Motor -V26 for RL window lifter stiff or defective (CL relay adhesive, Hall sender defective)	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check and ensure free movement of window lifter - Door control unit, rear left -J388 => General Body Assembly, Exterior; Repair group 57; Central locking Central locking
No or wrong setting	- Initialisation for automatic open/close function not performed	- Perform initialisation for automatic open/close function => General Body Assembly, Exterior; Repair group 58; Rear door Rear door

1) The door window may also run stiffly in the window channel.

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
00935 Motor -V27 for RR window lifter	- Fault in wiring or connectors - Window lifter mechanism stiff ¹⁾ Protected by copyright. Copying for private or commercial use, without the written permission of Audi AG, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability for the content of this document. - Motor -V27 for RR window lifter stiff or defective (CL relay adhesive, Hall sender defective)	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check and ensure free movement of window lifter - Replace door control unit, rear right -J389 => General Body Assembly, Exterior; Repair group 57; Central locking Central locking
No or wrong setting	- Initialisation for automatic open/close function not performed	- Perform initialisation for automatic open/close function => General Body Assembly, Exterior; Repair group 58; Rear door Rear door

1) The door window may also run stiffly in the window channel.

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
00936		



Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
Switch -E107 for pass. side window lifter1) Implausible signal	- Fault in wiring or connectors - Installation of the switch NOK, sticks when operated - Switch -E107 for pass. side window lifter defective	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Read measured value block; display group 014 => Page 25, Display zone 1 - Check the switch - Replace switch -E107 for pass. side window lifter and mirror adjustment => Electrical System; Repair group 96; Servicing switch Servicing switch

1) A fault is set if the rocker switch is pressed in one direction for longer than 1 minute, or both signals (open, close) occur simultaneously.

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
00937 Switch -E52 for RL window lifter1) Implausible signal	- Fault in wiring or connectors - Installation of the switch NOK, sticks when operated - Switch -E52 for RL window lifter defective	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Read measured value block; display group 015 => Page 26, Display zone 3 - Check the switch - Replace switch -E52 for RL window lifter => Electrical System; Repair group 96; Servicing switch Servicing switch

1) A fault is set if the rocker switch is pressed in one direction for longer than 1 minute, or both signals (open, close) occur simultaneously.

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
00938 Switch -E54 for RR window lifter1) Implausible signal	- Fault in wiring or connectors - Installation of the switch NOK, sticks when operated	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Read measured value block; display group 015 => Page 26, Display zone 1 - Check the switch

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
	- Switch -E54 RR window lifter defective	- Replace switch -E54 RR window lifter => Electrical System; Repair group 96; Servicing switch Servicing switch

1) A fault is set if the rocker switch is operated in one direction for longer than 1 minute, or both signals (open, close) occur simultaneously.

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
00939 Motor -V149 for mirror adjust., driver's side Short to positive Short to earth	- Fault in wiring or connectors - Motor -V149 for mirror adjust., driver's side defective	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check and if necessary replace motor -V149 for mirror adjust., driver's side. => General Body Assembly, Exterior; Repair group 57; Front door Front door
00940 Motor -V150 for mirror adjust., passenger's side Short to positive Short to earth	- Fault in wiring or connectors - Motor -V150 for mirror adjust., passenger side defective	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check and if necessary replace motor -V150 for mirror adjust., pass. side. => General Body Assembly, Exterior; Repair group 57; Front door Front door

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
00952 Signal driver's door open Short to positive Protected by copyright. Copying for private or commercial purposes, in part or in full, is prohibited without the written permission of Audi AG. Audi AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright © 2000 Audi AG	- Fault in wiring or connectors	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder
00947 Switch -E188 for remote unlocking, tailgate Implausible signal	- Fault in wiring or connectors	- Check wiring and connectors according to current flow diagram



Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
	- Switch -E188 for remote un- locking, tailgate is defective	- Check and if necessary replace switch -E188 for remote unlock- ing, tailgate. => Electrical System; Repair group 96; Servicing switch Serv- icing switch

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
00955 Key 1 Adaption limit exceeded	- Key was operated more than 200 times while out of range	- Re-matching procedure for existing radio-operated remote control keys => Page
00956 Key 2 Adaption limit exceeded		
00957 Key 3 Adaption limit exceeded		
00958 Key 4 Adaption limit exceeded		

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
00964 Signal for driver's door open; positive Short to positive Short to earth	- Fault in wiring or connectors	- Check wiring and connectors accord- ing to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations bind- er
01030 Driver's side CL key switch, lock Implausible signal1)	- Fault in wiring or connectors - Lock cylinder sticks	- Check wiring and connectors accord- ing to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations bind- er Read measured value block; display group 002 => Page 20, Display zone 1 Check installation of the lock cylinder => General Body Assembly, Exterior; Repair group 57; Front door Front door

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1) Is set if operated for longer than 1 minute (switch stuck).

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01031 Driver's side CL key switch, unlock		

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
Implausible signal1)	- Fault in wiring or connectors - Lock cylinder sticks	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Read measured value block; display group 002 => Page 20, Display zone 1 - Check installation of the lock cylinder => General Body Assembly, Exterior; Repair group 57; Front door Front door

1) Is set if operated for longer than 1 minute (switch stuck).

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01032 Passenger's side CL key switch, lock Implausible signal1)	- Fault in wiring or connectors - Lock cylinder sticks	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Read measured value block; display group 002 => Page 20, Display zone 2 - Check installation of the lock cylinder => General Body Assembly, Exterior; Repair group 57; Front door Front door

1) Is set if operated for longer than 1 minute (switch stuck).

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01033 Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted without the written consent of Audi AG. Audi AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG. Passenger's side CL key switch, unlock Implausible signal1)	- Fault in wiring or connectors - Lock cylinder sticks	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Read measured value block; display group 002 => Page 20, Display zone 2 - Check installation of the lock cylinder => General Body Assembly, Exterior; Repair group 57; Front door Front door

1) Is set if operated for longer than 1 minute (switch stuck).

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01034 Window lifter thermal protection active, driver's side		



Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
	- Fault in wiring or connectors - Window lifter sticks or is stiff1) - Window lifter motor stiff - Thermal protection software has triggered	- Erasing fault memory => Page 24 , Display zone 2 - Check and if necessary replace driver's side window lifter motor - => General Body Assembly, Exterior; Repair group 57; Front door Front door

1) The door window may also run stiffly in the window channel.

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01035 Window lifter thermal protection active, passenger's side	- Fault in wiring or connectors - Window lifter sticks or is stiff1) - Window lifter motor stiff - Thermal protection software has triggered	- Erasing fault memory => Page 25 , Display zone 2 - Check and if necessary replace passenger's side window lifter motor - => General Body Assembly, Exterior; Repair group 57; Front door Front door

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1) The door window may also run stiffly in the window channel.

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01036 Window lifter thermal protection active, RL	- Fault in wiring or connectors - Window lifter sticks or is stiff1) - Window lifter motor stiff - Software thermal protection has triggered	- Erasing fault memory => Page 26 , Display zone 4 - Check and if necessary replace passenger's side window lifter motor - => General Body Assembly, Exterior; Repair group 58; Rear door Rear door

1) The door window may also run stiffly in the window channel.

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01037 Window lifter thermal protection active, RR		

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
	- Fault in wiring or connectors - Window lifter sticks or is stiff¹⁾ - Window lifter motor stiff - Software thermal protection has triggered	- Erasing fault memory => Page 26, Display zone 2 - Check and if necessary replace passenger's side window lifter motor - => General Body Assembly, Exterior; Repair group 58; Rear door Rear door

1) The door window may also run stiffly in the window channel.

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01134 Alarm horn -H12 Short to positive Short to earth Internal voltage supply No communication ¹⁾ Defective ¹⁾	- Fault in wiring or connectors - Fuses defective - No voltage supply - Open or short circuit in the signal wire from backup horn to convenience system central control unit. - Alarm horn -H12 defective	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check fuses and replace if necessary - Check power supply - Check and if necessary repair wiring from backup horn to convenience system central control unit - Re-activate the anti-theft alarm, check function of alarm horn -H12 (perform final control diagnosis => Page 17) and replace if necessary - => General Body Assembly, Exterior; Repair group 57; Central locking Central locking

1) Vehicles with intelligent backup horn only.

4.3 - Fault table; fault code 01317 - 01701

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01317 Control unit in dash panel insert -J285		



Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
No communication	- Short or open circuit in connectors (convenience system central control unit or control unit in dash panel insert) or in both data bus wires in Group convenience data bus - Control unit in dash panel insert -J285 is defective or the convenience system central control unit was not adapted in dash panel insert	- Check connectors and both data bus wires in the Group convenience data bus in accordance with the current flow diagrams and repair if necessary. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check data exchange => Page 35 - Check for installed bus users via read measured value block in the dash panel insert and add to Group convenience data bus by adapting if necessary. => Electrical System Self-diagnosis; Repair group 01; Dash panel insert self-diagnosis Dash panel insert

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01320 Control unit for Climatronic -J255 No communication	- Short or open circuit in connectors (convenience system central control unit or control unit for Climatronic) or in both data bus wires in Group convenience data bus - Control unit for Climatronic -J255 is defective	- Check connectors and both data bus wires in the Group convenience data bus in accordance with the current flow diagrams and repair if necessary. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check data exchange => Page 35 - Check dash panel insert and replace if necessary => Electrical System; Repair group 90; Dash panel insert Dash panel insert - Check control unit for Climatronic -J255 and replace if necessary => Heating and Air Conditioner; Repair group 87

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Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01330 Convenience system central control unit -J393 Power supply too low Power supply too high Defective	- Fuses defective - Battery -A defective or discharged - Alternator -C defective - Voltage regulator -C1 defective - Convenience system central control unit -J393 defective	- Check fuses and replace if necessary - Check supply voltage. - Read measured value block; display group 016 => Page 26, Display zone 1 - Replace convenience system central control unit -J393 => General Body Assembly, Exterior; Repair group 57; Central locking Central locking

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01331 Door control unit, driver's side -J386 No communication Power supply too low Power supply too high Defective	- Short or open circuit in the connectors or in both Group convenience data bus wires - Door control unit in emergency running mode - Battery -A defective or discharged - Alternator -C defective - Voltage regulator -C1 defective - Door control unit, driver's side defective -J386	- Check connectors and data bus wires in the Group convenience data bus in accordance with the current flow diagrams and repair if necessary. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Read measured value block; display group 017 => Page 27, Display zone 1; check communication to door control unit - Interrogate control unit version =>Page 7. If the door control unit no longer responds, check the door control unit and replace if necessary - Check supply voltage. - Read measured value block; display group 016 => Page 26, Display zone 1 - Replace door control unit, driver's side -J386 => General Body Assembly, Exterior; Repair group 57; Front door Front door

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01332 Door control unit, passenger's side -J387 No communication Power supply too low Power supply too high	- Short or open circuit in the connectors or in both Group convenience data bus wires - Door control unit in emergency running mode - Battery -A defective or discharged - Alternator -C defective - Voltage regulator -C1 defective	- Check connectors and data bus wires in the Group convenience data bus in accordance with the current flow diagrams and repair if necessary. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Read measured value block; display group 017 => Page 27, Display zone 2; check communication to door control unit - Interrogate control unit version =>Page 7. If the door control unit no longer responds, check the door control unit and replace if necessary - Check supply voltage. - Read measured value block; display group 016 => Page 26, Display zone 1



Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
Defective	- Door control unit, passenger's side -J387 defective	- Replace door control unit, passenger's side -J387 => General Body Assembly, Exterior; Repair group 57; Front door Front door

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01333 Door control unit, RL -J388 No communication	- Short or open circuit in the connectors or in both Group convenience data bus wires	- Check connectors and data bus wires in the Group convenience data bus in accordance with the current flow diagrams and repair if necessary. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Read measured value block; display group 017 => Page 27, Display zone 3; check communication to door control unit
	- Door control unit in emergency running mode	- Interrogate control unit version =>Page 7. If the door control unit no longer responds, check the door control unit and replace if necessary
Power supply too low	- Battery -A defective or discharged	- Check supply voltage.
Power supply too high	- Alternator -C defective	Read measured value block; display group 016 => Page 26, Display zone 1
	- Voltage regulator -C1 defective	
Defective	- Door control unit, rear left -J388 defective	- Replace door control unit, rear left -J388 => General Body Assembly, Exterior; Repair group 58; Rear door Rear door

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01334 Door control unit RR -J389 No communication	- Short or open circuit in the connectors or in both Group convenience data bus wires	- Check connectors and data bus wires in the Group convenience data bus in accordance with the current flow diagrams and repair if necessary. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Read measured value block; display group 017 => Page 27, Display zone 4; check communication to door control unit
	- Door control unit in emergency running mode	- Interrogate control unit version =>Page 7. If the door control unit no longer responds, check the door control unit and replace if necessary
Power supply too low	- Battery -A defective or discharged	- Check supply voltage.
Power supply too high	- Alternator -C defective	Read measured value block; display group 016 => Page 26, Display zone 1
	- Voltage regulator -C1 defective	

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
Defective	- Door control unit, rear right -J389 defective	- Replace door control unit, rear right - J389 => General Body Assembly, Exterior; Repair group 58; Rear door Rear door

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01336 CAN convenience In 1-wire operation Protected by copyright. Copying or distribution of this document is prohibited unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by AUDI AG.	- Short or open circuit in the connectors or in one of the two Group convenience data bus wires - Data bus only operating on one wire (possibility of EMC problems)	- Check connectors and data bus wires in the Group convenience data bus in accordance with the current flow diagrams and repair if necessary. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Read measured value block; display group 016 => Page 35
Defective	- Short or open circuit in the connectors or in both Group convenience data bus wires	- Check connectors and data bus wires in the Group convenience data bus in accordance with the current flow diagrams and repair if necessary. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Check data exchange => Page 35

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01340 Mirror adjustment switch Implausible signal ¹⁾	- Fault in wiring or connectors - Mirror adjustment switch defective	- Check wiring and connectors according to current flow diagram Check mirror adjustment switch and replace if necessary => Electrical System; Repair group 96; Servicing switch Servicing switch

1) Is set if operated for longer than 1 minute (switch stuck).

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01348 Warning lamp for interior monitoring deactivation -K162 Short to positive	- Fault in wiring or connectors - Warning lamp for interior monitoring deactivation - K162 defective	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Check and if necessary replace warning lamp for interior monitoring deactivation -K162
01357 Motor for tank flap locking -V155		



Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
Short to positive Short to earth	- Fuses defective - Fault in wiring or connectors - Motor for tank flap locking - V155 defective	- Check fuses and replace if necessary - Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check motor for tank flap locking - V155 and replace if necessary => General Body Assembly, Exterior; Repair group 57; Central locking Central locking

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01366 Opening via crash signal Open circuit	- Final control diagnosis on airbag control unit -J234 has been performed - Airbag control unit -J234 triggered by crash situation - Short or open circuit in the wiring connection between the airbag control unit -J234 and the convenience system central control unit -J393	- Read fault memory of airbag control unit -J234 - Erasing fault memory => Page 15 - Check wiring connection between the airbag control unit -J234 the and convenience system central control unit -J393 according to current flow diagram and repair if necessary => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder
01368 Alarm from luggage compartment switch -F206	- Anti-theft alarm has triggered as a result of unauthorised opening of the tailgate - Contact switch in tailgate -F206 defective - False alarm	- Erasing fault memory => Page 21 , Display zone 2 - Check luggage compartment contact switch -F206 and replace if necessary. => Electrical System; Repair group 96; Servicing switch Servicing switch

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01369 Alarm from bonnet switch -F120	- Anti theft alarm has triggered as a result of unauthorised opening of the bonnet - Switch bonnet lid -F120 defective - False alarm	- Erasing fault memory => Page 21 , Display zone 4 - Check bonnet switch -F120 and replace if necessary. => Electrical System; Repair group 96; Servicing switch Servicing switch
01370		

Alarm from interior monitoring	- Anti-theft alarm has triggered as a result of interior monitoring - False alarm	- Read out interior monitoring fault memory Fault-finding after self-diagnosis ultrasonic interior monitoring=> Page 15
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Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01371 Alarm triggered by driver's door contact switch -F2	- Anti-theft alarm has triggered as a result of unauthorised opening of driver's door - Door contact switch -F2 defective - False alarm	- Erasing fault memory => Page 21, Display zone 1 - Check door contact switch - F2 and replace if necessary. => Electrical System; Repair group 96; Servicing switch
01373 Alarm from radio earth contact	- Anti-theft alarm has triggered as a result of unauthorised removal of radio - Open circuit in radio earth connection - False alarm	- Erasing fault memory => Page 15 - Restore earth connection to radio => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01374 Alarm from terminal 15	- Anti-theft alarm has been triggered by unauthorised starting (short circuiting) - Short-circuit between terminal 30 and terminal 15 - False alarm	- Erasing fault memory => Page 15 - Check and if necessary repair wiring and connections according to the current flow diagram. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder
01379 Switch for interior monitoring -E183 Implausible signal	- Fault in wiring or connectors - Switch for interior monitoring - 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 - Check switch for interior monitoring -E183 and replace if necessary => Electrical System; Repair group 96; Servicing switch

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01384 Alarm from rear window glass-break sensor -G304	Protected by copyright. Copying for private or commercial purposes, in part or in whole, is not permitted unless authorised by AUDI AG. AUDI AG does not guarantee or accept any liability for correctness of information in this document. Copyright by AUDI AG.	



Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
	- The anti-theft alarm has been triggered by an attempted break-in at the rear window - Conductor loop of the rear window glass-break sensor -G304 is interrupted, is not correctly connected. - False alarm - Short or open circuit in the wiring/connectors between the rear window glass-break sensor -G304 and the convenience system central control unit -J393	- Erasing fault memory => Page 15 - Wiring/connectors between the rear-window glass-break sensor -G304 and the convenience system central control unit -J393 according to the current flow diagrams and repair if necessary => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - If there is an interruption of the rear window glass-break sensor -G304, the rear window must be replaced. => General Body Assembly, Exterior; Repair group 60; Windows
01398 Signal wiring from CL: Doors open Short to positive	- Fault in wiring or connectors	- Check and if necessary repair wiring and connections according to the current flow diagram. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder

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Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01403 Rear window glass-break sensor -G304	- When activating the anti-theft alarm, there is/was a short or open circuit in the wiring/connectors between the rear window glass-break sensor -G304 and the convenience system central control unit -J393 - When activating the anti-theft alarm, the conductor loop of the rear window glass-break sensor is/was interrupted or incorrectly connected	- Erasing fault memory => Page 15 - Wiring/connectors between the rear-window glass-break sensor -G304 and the convenience system central control unit -J393 according to the current flow diagrams and repair if necessary => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - If there is an interruption of the rear window glass-break sensor -G304, the rear window must be replaced. => General Body Assembly, Exterior; Repair group 60; Windows

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01559 Driver's door		

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
Does not lock Does not unlock Does not deadlock Deadlock does not release Defective	- Fault in wiring or connectors - No voltage supply to the driver's door - Driver's side CL lock units defective - Door control unit -J386, driver's side 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 the voltage supply to driver's door control unit or at door joint and repair if necessary. Erasing fault memory Perform functional check. Read measured value block; display group 001 => Page 20, Display zone 3/4 Check driver's side CL lock unit and replace if necessary => General Body Assembly, Exterior; Repair group 57; Front door Front door - Check driver's side door control unit -J386 and repair if necessary

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01560 Passenger's door. Does not lock Does not unlock Does not deadlock Deadlock does not release Defective	- Fault in wiring or connectors - No voltage supply to the passenger's door - Passenger's side CL lock units defective - Door control unit -J387, passenger's side 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 the voltage supply to passenger's door control unit or at door joint and repair if necessary. Erasing fault memory Perform functional check. Read measured value block; display group 002 => Page 20, Display zone 3/4 Check passenger's side CL lock unit and replace if necessary => General Body Assembly, Exterior; Repair group 57; Front door Front door - Check passenger's side door control unit -J387 and repair if necessary

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01561 Door rear left		



Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
Does not lock Does not unlock Does not deadlock Deadlock does not release Defective	- Fault in wiring or connectors - No voltage supply to the rear left door1) - Rear left door CL lock unit defective - Rear left door control unit defective1) - Convenience system central control unit -J393 defective2)	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Check the voltage supply to RL door control unit or at door joint and repair if necessary. Erasing fault memory Perform functional check. Read measured value block; display group 003 => Page 20, Display zone 3/4 Check rear left door CL lock unit and replace if necessary => General Body Assembly, Exterior; Repair group 57; Rear door Rear door - Check rear left door control unit and replace if necessary1) Check convenience system central control unit -J393 and replace if necessary2)

1) For equipment version with rear electric window lifters only.

2) In the case of mechanical rear window lifters, the CL functions for the rear doors are controlled via the convenience system central control unit.

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01562 Door, rear right Does not lock Does not unlock Does not deadlock Deadlock does not release Defective	- Fault in wiring or connectors - No voltage supply to the rear right door1) - Rear right door CL lock unit defective - Rear right door control unit defective1) - Convenience system central control unit -J393 defective2)	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder Check the voltage supply to RR door control unit or at door joint and repair if necessary. Erasing fault memory Perform functional check. Read measured value block; display group 003 => Page 20, Display zone 1/2 Check rear right door CL lock unit and replace if necessary => General Body Assembly, Exterior; Repair group 57; Rear door Rear door - Check rear right door control unit and replace if necessary1) Check convenience system central control unit -J393 and replace if necessary2)

1) For equipment version with rear electric window lifters only.

2) In the case of mechanical rear window lifters, the CL functions for the rear doors are controlled via the convenience system central control unit.

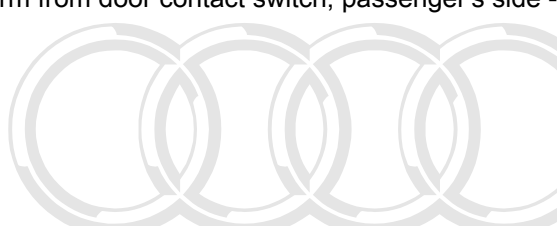
Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01563 Interior lock switch driver's side -E150, LOCK Implausible signal 1)	- Fault in wiring or connectors - Interior lock switch, driver's side -E150, LOCK defective	- Check and if necessary repair wiring and connections according to the current flow diagram. - Check interior lock switch driver's side -E150, LOCK and replace if necessary => Electrical System; Repair group 96; Servicing switch - Servicing switch
01564 Interior lock switch, driver's side -E150, UNLOCK Implausible signal 1)	- Fault in wiring or connectors - Interior lock switch, driver's side -E150, UNLOCK defective	- Check and if necessary repair wiring and connections according to the current flow diagram. - Check interior lock switch, driver's side -E150, UNLOCK and replace if necessary => Electrical System; Repair group 96; Servicing switch - Servicing switch

1) Is set if operated for longer than 1 minute (switch stuck).

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Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01565 Luggage compartment light -W3 Short to positive Short to earth Open circuit	- Fault in wiring or connectors - Luggage compartment light -W3 defective	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check luggage compartment light -W3 and replace if necessary. => Electrical System; Repair group 94; Repairing rear lights - Repairing rear lights
01568 Signal for automatic opening Short to positive	- Fault in wiring or connectors	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder
01569 Signal for automatic closing Short to positive	- Fault in wiring or connectors	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder



Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01572 Alarm from door contact switch, passenger's side -F3	 - Anti-theft alarm has triggered as a result of unauthorised opening of the passenger's door - Door contact switch -F3 defective - False alarm	- Erasing fault memory => Page 21, Display zone 2 - Check door contact switch -F3 and replace if necessary. => Electrical System; Repair group 96; Servicing switch Servicing switch
01573 Alarm from rear left door contact switch -F10	 Protected by copyright. Copying for private or commercial purposes, in part or in whole, is prohibited without the written permission of Audi AG. Audi AG does not guarantee or accept any liability with respect to the correctness of information in this document. Copyright by Audi AG. - Anti-theft alarm has triggered as a result of unauthorised opening of rear left door - Door contact switch -F10 defective - False alarm	- Erasing fault memory => Page 21, Display zone 4 - Check door contact switch -F10 and replace if necessary. => Electrical System; Repair group 96; Servicing switch Servicing switch

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01574 Alarm from RR door contact switch -F11	- Anti-theft alarm has triggered as a result of unauthorised opening of rear right door - Door contact switch -F11 defective - False alarm.	- Erasing fault memory => Page 21, Display zone 3 - Check door contact switch -F11 and replace if necessary. => Electrical System; Repair group 96; Servicing switch Servicing switch
01615 Switch for remote release fuel filler flap -E204 Implausible signal 1)	- Fault in wiring or connectors - Switch for remote release fuel filler flap -E204 defective	- Check wiring and connectors according to current flow diagram - Check and if necessary replace switch for fuel filler flap remote release -E204 => Electrical System; Repair group 96; Servicing switch Servicing switch

1) Is set if operated for longer than 1 minute (switch stuck)

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01616 Signal wire to interior monitoring Short to positive Short to earth	- Fault in wiring or connectors	- Check and if necessary repair wiring and connections according to the current flow diagram. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
No communication	- Open circuit in wiring or in connectors between the transmit/receive module for interior monitoring - G303 and the convenience system central control unit -J393 - Transmit/receive module for interior monitoring -G303 defective	- Read out interior monitoring fault memory - Check wiring and connectors between the transmit/receive module for interior monitoring -G303 the and convenience system central control unit -J393 according to current flow diagram and repair if necessary => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder
Read out fault memory	- Interior monitoring self test has not been completed OK	- Read fault memory of interior monitoring - Fault-finding after self-diagnosis ultrasonic interior monitoring=> Page 59

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01699 Motor for CL, tailgate -V53 Short to positive Short to earth	- Fault in wiring or connectors - Motor for CL, tailgate -V53 defective	- Check fuses and replace if necessary - Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check motor for CL, tailgate -V53 and replace if necessary => General Body Assembly, Exterior; Repair group 55; Tailgate Tailgate
01701 Dimming for interior light Short to positive	- Defective wiring or connectors between the central control unit and the front or rear interior lamp	- Check and if necessary repair wiring and connections according to the current flow diagram. => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder

5 - Ultrasonic interior monitoring self-diagnosis

5.1 - Ultrasonic interior monitoring self-diagnosis

5.2 - General notes

The ultrasonic interior monitoring is only available in combination with the anti-theft alarm.

The addition of an ultrasonic interior monitoring increases the level of protection offered by the anti-theft alarm.

The interior monitoring will set off the anti-theft alarm if an attempt is made to enter the vehicle.



Function

The ultrasonic interior monitoring consists of:

- ♦ Transmit/receive module for interior monitoring -G303
- ♦ Switch for interior monitoring -E183
- ♦ Warning lamp for interior monitoring -K162

The transmit/receive module for interior monitoring -G303 monitors the vehicle interior and checks the monitoring signal.

If there is a deviation in the monitoring signal, the transmit/receive module for interior monitoring triggers the alarm via the convenience system central control unit.

The interior monitoring switch is used to switch off the interior monitoring manually when locking the vehicle, for example when a dog is left in the car.

=> Operating instructions

The sensor module features a self-diagnosis which can only be interrogated when the interior monitoring is deactivated. If malfunctions of system components occur, the fault codes are stored in the fault memory by the transmit/receive module for interior monitoring -G303. These can then be identified using fault reader V.A.G 1551 or vehicle systems tester V.A.G 1552.

5.3 - Initiating self-diagnosis of the interior monitoring

Test requirements:

- ♦ Check fuse using current flow diagram.
- ♦ Connecting 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 Ckey to escape.
- Switch ignition on.
- Switch on printer with the Print key (indicator lamp in key illuminates).
- Press key 1 for "Rapid data transfer" mode.

-> Indicated on display:

Rapid data transfer HELP
Enter address word XX

Address word for interior monitoring: 45

- Press keys -4- and -5-.

-> Indicated on display:

Rapid data transfer Q
45 - Interior monitoring

- Confirm input with Q key.

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

8Z0951177 Interior monitoring D03
Code 00001 WSC 06812

- Press ➔key.

Note:

Press **HELP** key to obtain a printout of available functions.

Self-diagnosis functions

	Page
01 - Interrogate control unit version	66
02 - Interrogate fault memory	
03 - Final control diagnosis	
05 - Erase fault memory	
06 - End output	
07 - Encode control unit	
08 - Read measured value block	
10 - Adaption	

Notes:

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- ◆ A list of the possible functions is printed out after pressing the **HELP** key:
- ◆ Further functions which are printed out after pressing the **HELP** key can be ignored.
- ◆ After ending the function, the V.A.G 1551 returns to the original status:

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

5.4 - 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 illuminates).

Performing function "02 - Interrogate 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 62 .

-> If the message "No fault recognised" is displayed, the program returns to its original status 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 67 .
- End output (function 06) => Page 68
- Switch off ignition and detach diagnostic connector.

5.5 - Fault table for interior monitoring

Notes:

- ♦ The following table lists all faults that can be recognised by the transmit/receive control module for interior monitoring and printed out using V.A.G 1551. The faults are listed in order according to their 5-digit code numbers.
- ♦ Fault codes appear only on print-out.
- ♦ Before replacing a component shown as faulty, check wiring and connectors 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.
- ♦ The fault memory records all static and sporadic faults.
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.

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01462 Ultrasonic sensor for anti-theft alarm -G209 Implausible signal	- Fault in wiring or connectors - Transmit/receive module for interior monitoring -G303 defective	- Check wiring and connectors according to current flow diagram => Current Flow Diagrams, Electrical Fault-finding and Fitting Locations binder - Check the transmit/receive module for interior monitoring -G303 for damage and replace if necessary => General Body Assembly, Exterior; Repair group 57; Central locking Central locking
Power supply too high Power supply too low	- Fuses defective - Battery -A disconnected - Battery -A defective or discharged - Alternator -C defective - Voltage regulator -C1 defective	- Check fuses and replace if necessary - Check supply voltage. - Read measured value block; display group 016 => Page 26 , Display zone 1

Output on printer V.A.G 1551	Possible causes of fault	Fault remedy
01463 Alarm triggered by sensor for anti-theft alarm Open Closed	- An attempt has been made to enter into the vehicle interior through an open window (open by at least 5 cm), triggering the alarm - False alarm - Attempted forced entry into vehicle interior or after a functional test - False alarm	- Erasing fault memory => Page 66
65535 Control unit defective	- Transmit/receive module for interior monitoring -G303 defective	- Replace transmit/receive module for interior monitoring -G303 => General Body Assembly, Exterior; Repair group 57; Central locking Central locking

5.6 - 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:

8Z0951171 Interior monitoring D03
□
Code 00001 WSC 06812

Explanation of the display

- ◆ 8Z0951171: Number of control unit
- ◆ Interior monitoring sys: Component designation and version
- ◆ D03: Software version
- ◆ Code 00001: Coding => Page 64
- ◆ WSC 06812: Workshop code

1) Stored automatically in control unit in the event of system intervention.

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

-> Indicated on display:

Rapid data transfer HELP
Select function XX

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Control unit versions for the transmit/receive module for interior monitoring -G303 (for current control unit versions, see parts catalogue)

Possible versions	Version
8Z0 951 177	Sensor module without micro aperture and without airbag Off lamp
8Z0 951 177 A	Sensor module with micro aperture and without airbag Off lamp
8Z0 951 173	Sensor module without micro aperture and with airbag Off lamp
8Z0 951 173 A	Sensor module with micro aperture and with airbag Off lamp

5.7 - 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:

- ♦ Triggering of anti-theft alarm.

Notes:

- ♦ An "anti-theft alarm" cannot be triggered through this final control diagnosis. In order to trigger an anti-theft alarm, please perform final control diagnosis from the convenience system for central control unit =>Paste 17.
- ♦ During final control diagnosis "Triggering of an anti-theft alarm", the bi-directional communication line between the transmit/receive module for interior monitoring is switched to earth, and can consequently be used for measuring purposed.

5.8 - Encoding control unit

Note:

- ♦ Only one coding version is currently available for the A2. The control unit is generally encoded with the standard code "00001".

Performing function "07 - Encode 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 - Encode control unit	

- Confirm input with Q key.

-> Indicated on display:

Code control unit	Q
Enter code number XXXXX (0--32767)	



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- Enter code number:

Code control unit Q
Enter code number 00001 (0--32767)

- > Indicated on display:
- Confirm input with Q key.

-> Indicated on display:

8Z0951177 Interior monitoring D03
□
Code 00001 WSC 06812

- 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.

5.9 - 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:

Read 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 65

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5.10 - Summary of measured value blocks

Measured value block 001

Read measured value block



◀ Indicated on display



0001	100 %		
			Vacant measured value block
			Vacant measured value block
			Sensitivity of sensors1) ▪ Display in percent 50...100 %
			Communication wire status ▪ Wire OK = 0001, fault = 0000

1) See function "Adaption" => Page 66 .

5.11 - 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.

Performing adaption (function 10)

-> Indicated on display:

Rapid data transfer HELP
Select function XX

- Press keys -1- and -0-.

-> Indicated on display:

Rapid data transfer Q
10 - Adaption

- Confirm input with Q key.

-> Indicated on display:

Adaption
Enter channel no. XX

- 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.

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-> Indicated on display:

Channel 1 Adaption 100
Enter adaption value XXXXX

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

-> 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
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.

5.12 - Erasing fault memory

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.

- Connect the fault reader => Page 5 .

Preconditions:

- ◆ Fault was remedied
- ◆ Functional test was performed
- ◆ Fault memory was interrogated again

-> Indicated on display:

Rapid data transfer	HELP
Select function XX	

- Press keys -0- and -5- (use 05 to enter function "Erase fault memory").



-> Indicated on display:

Rapid data transfer Q
05 Erase fault memory

- Confirm entry with Q key.

-> Indicated on display:

Rapid data transfer
Fault memory has been deleted

- Press ⇒ key.

-> Indicated on display:

Rapid data transfer
Select function XX

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Notes:

Warning
Fault memory not interrogated

- > This display indicates a fault in the test sequence.
- ♦ Observe test sequence exactly: First interrogate fault memory then erase it.
- Press keys -0- and -6- to end output.

-> Indicated on display:

Rapid data transfer Q
06 End output

- Confirm entry with Q key.

-> Indicated on display:

Rapid data transfer HELP
Enter address word XX

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

5.13 - End of output

- Press keys -0- and -6- to end output.

-> Indicated on display:

Rapid data transfer Q
06 End output

- Confirm entry with Q key.

-> Indicated on display:

Rapid data transfer HELP
Enter address word XX

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