

Volkswagen Golf 4 / Bora (1998-2005), GTI / Jetta (1998-2005), R32 (A4)

Note: For Guided Fault Finding information, refer to VAS 5051 Diagnostic Tester

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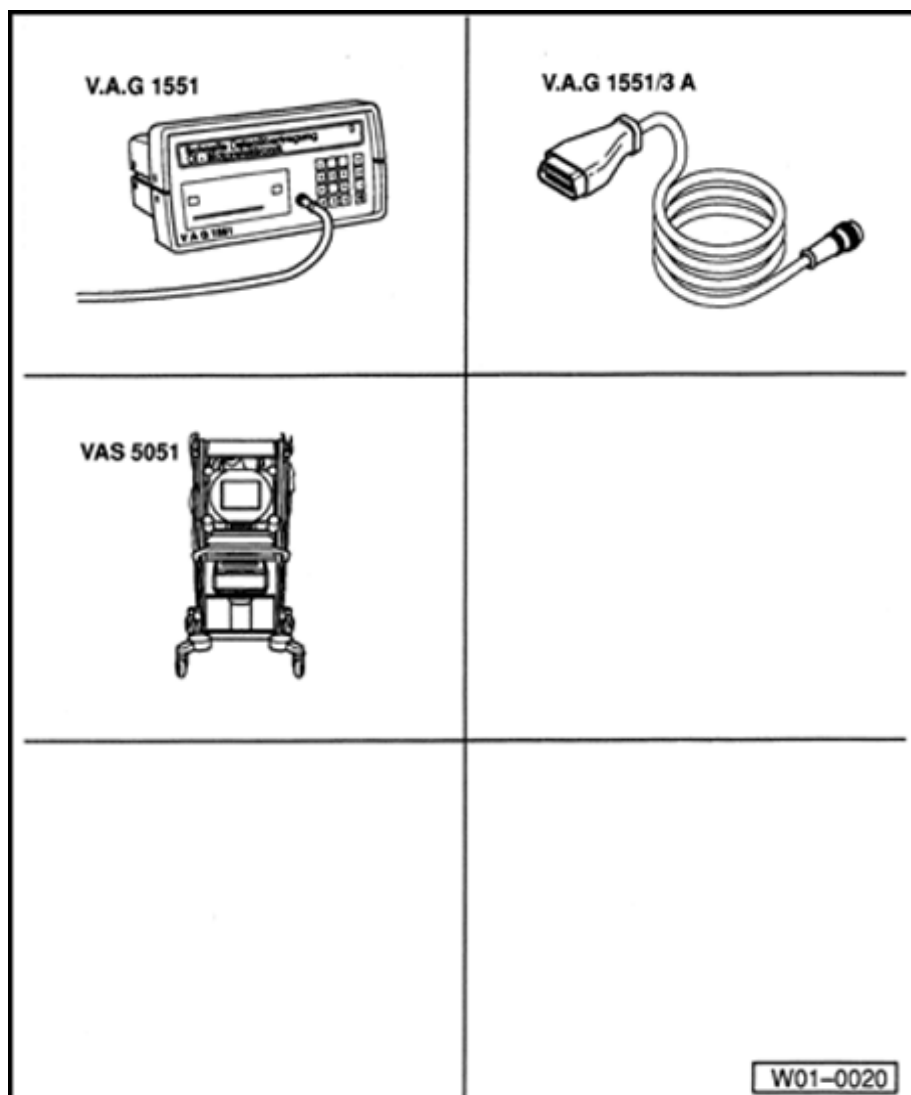
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On Board Diagnostic (OBD) through m.y. 2001

Tools

Special tools and equipment

- ◆ VAG 1551/1552 Scan Tool (ST)
- ◆ VAG 1551/3C cable
- ◆ VAS 5051 or VAS 5052 Vehicle Diagnostic Testing and Information System



VAS 5051 or VAG 1551, connecting

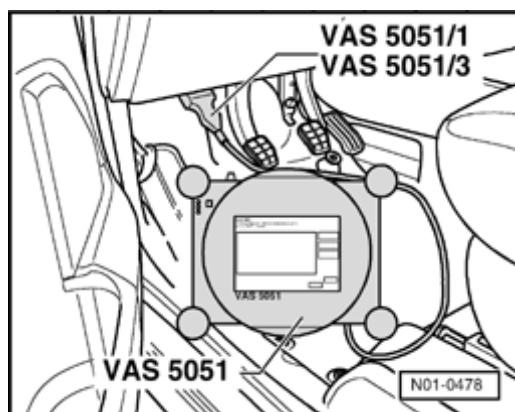
All functions previously performed with the VAG 1551 or VAG 1552 can also be performed using the VAS 5051 tester via operating mode vehicle self-diagnosis.

⇒ *Operating instructions for VAS 5051 tester.*

VAS 5051, connecting

Test requirements:

- ◆ All fuses OK according to wiring diagram.
- ◆ Battery voltage must be at least 11.5 volts.



- Connect VAS 5051/1 or VAS 5051/3 diagnostic wire to Data Link Connector (DLC)
- Switch on ignition.

Select operating mode, vehicle system and function:

- Press "Vehicle Self-Diagnosis" selection on display.
- Select the vehicle system to be tested on display (touch screen).
- Select the desired function on display.

Display will indicate the control module identification and the coding.

Display will indicate all relevant diagnostic functions.

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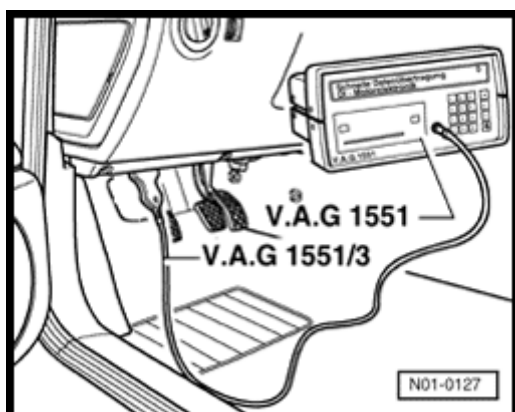
**Notes:**

- ◆ Display fields in functions 04 (Basic sett. 08 (Read Measuring Value Block) are listed from top to bottom.
- ◆ The following test sequences are described in the VAG 1551 Scan Tool (ST).

VAG 1551, connecting

Test requirements:

- ◆ All fuses OK according to wiring diagram
- ◆ Battery voltage must be at least 11.5 vol



- Connect VAG 1551 Scan Tool (ST) with '1551/3C' cable to Data Link Connector (DLC).

Notes:

- ◆ If nothing is indicated on display, check supply for VAG 1551 scan tool according to wiring diagram.

⇒ Electrical Wiring Diagrams, Troubleshooting, Component Locations

- ◆ Depending on the program, additional information can be printed out by pressing the **HELP** button of the VAG 1551 scan tool.
- ◆ Function 00 "Automatic test sequence" is performed in operating mode 1 "Rapid data transfer". This automatically checks all modules installed in the vehicle.
- ◆ The **→** button is used for advancing through the program sequence.
- ◆ The **PRINT** button is used for switching printer (lamp in button lights up).

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VAG- On Board Diagnostic

HELP

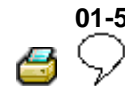


Indicated on display (* is displayed alternately):

1 - Rapid data transfer*

2 - Blink code output*

- Press button 1 for "Rapid data transfer".
- Continue On Board Diagnostic (OBD) of vehicle system to be tested as described under "performing On Board Diagnostic (OBD) ⇒ table of contents



Airbag system, On Board Diagnostic (OBD)

Function

The Airbag Control Module -J234- is located behind the console on the tunnel. It is equipped with a DTC memory. The On Board Diagnostic (OBD) connection is located under the driver's knee bar to left of the steering wheel.

The control module detects malfunctions in the airbag system and stores them in a permanent memory.

Malfunctions which can be attributed to a temporary open circuit in the wiring or a loose contact, will also be stored. These malfunctions will be displayed as sporadic DTCs "SP".

After the ignition is switched on, the Airbag Malfunction Indicator Lamp (MIL) -K75- comes on for about 4 seconds and then goes out again. If the lamp then flashes for a further 15 seconds this signals that the airbags or the belt tensioners are electronically blocked.



- ◆ If the warning lamp -K75- does not go out again after about 4 seconds, then the voltage supply to the Airbag Control Module -J234- is malfunctioning. Check DTC memory ⇒ ⇒ [Page 01-30](#) .
- ◆ A malfunction is present if the warning lamp -K75- lights up again. Check DTC memory ⇒ ⇒ [Page 01-30](#) .
- ◆ If the warning lamp -K75- flashes continuously then the control module -J234- must be replaced.

To commence troubleshooting, initiate self-diagnosis and retrieve the stored information with the V.A.G 1551 scan tool.

The malfunction information displayed is used to refer to a DTC table with notes on the possible causes for directed repair measures.

WARNING!

- ◆ **Only visual check of wiring!**
- ◆ **Do not carry out electrical continuity tests or measurements to igniter circuits!**
- ◆ **Only check wiring with ignition switched off!**



Introducing On Board Diagnostic (OBD) for airbag

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) .
- Switch on printer with Print button (warning lamp in button lights up).
- Switch on ignition.

Rapid data transfer
Enter address word XX

HELP



Indicated on display:

- Press buttons -1- and -5- (the address word of the vehicle system to be tested "Airbag" is entered with 15).

Rapid data transfer
15 Airbag

Q



Indicated on display:

- Confirm entry with the -Q- button.

Rapid data transfer
Select function XX

HELP



Indicated on display:

Note:

Rapid data transfer
control module does not answer!

HELP



- ◆ *If one of the malfunction messages opposite appears in the display, the possible causes of the malfunction can be printed out with the HELP button.*

Rapid data transfer
K wire not switching to B+!

HELP



- ◆ *Ignition must be switched on.*

Rapid data transfer
No signal from control module!

→



- ◆ *Malfunctions have occurred at the start of or during the program (external interference?).*

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Rapid data transfer →
Fault in communication build up

**Note:**

◆ *Check diagnosis wires as well as voltage supply and Ground connection.*

- After repairing the possible causes of the fault, once again enter the address word 15 for "Airbag" by pressing -1- and -5- buttons and confirm with the -Q- button.

Rapid data transfer
Tester sends the address word 15



Indicated in display after entering the address word 15:

and then the following appears in the display:

1J0 909 608 D AIRBAG VW 3-S V03 →
Coding 00068 WSC12345



Indicated on display (see parts catalog for latest control module version).

- Press → button.

Rapid data transfer HELP
Select function XX



Indicated on display:



List of selectable functions

	page
01 - Check Control Module Version	⇒ Page 01-10
02 - Check DTC Memory	⇒ Page 01-30
03 - Output Diagnostic Test Mode	⇒ Page 01-87
05 - Erase DTC memory	⇒ Page 01-32
06 - End Output	⇒ Page 01-33
07 - Code Control Module	⇒ Page 01-13
08 - Read Measuring Value Block	⇒ Page 01-69

Note:

- ◆ *A list of possible functions is printed out after pressing the HELP button.*
- ◆ *Do not select further functions, which can be printed out after pressing the HELP button.*
- ◆ *After the function is completed the V.A.G 1551 returns to the following start position:*

Rapid data transfer
Select function XX

HELP



Indicated on display:

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Control Module Version, checking

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-7](#) .
- Switch on printer with Print button (warning lamp in button lights up).
- Press buttons -0- and -1-.

Rapid data transfer

q



Indicated on display:

01-Check Control Module Version

- Confirm entry with the -Q- button.

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1J0 909 609 A AIRBAG VW 3 SG V03 →
Coding 00068 WSC12345

Control module VW3 (example)



Indicated on display (see parts catalog for latest control module version).

Top line

- ◆ 1J0 909 609 A = Control module Part No.
- ◆ Airbag VW3 = System designation
- ◆ S = Side airbag, G = Elect. belt tensioner
- ◆ V03 = software version number

Lower line

- ◆ Coding XXXXX = Coding variants
- ◆ WSC XXXXX = Dealership number (Will be automatically stored in the control module when entering the system)

- Press → button.

Rapid data transfer HELP
Enter address word XX



Indicated on display:

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6Q0909605 A 0F AIRBAG VW5 02 0004 →

Coding 12358

WSC12345

**Control module VW5 (example)**

Indicated on display (see parts catalog for latest control module version).

Top line

- ◆ 6Q0909605 A = Control module Part No.
- ◆ 0F = Index
- ◆ Airbag VW5 = System designation
- ◆ 02 = version number crash sensor
- ◆ 0004 = software version number

Lower line

- ◆ Coding XXXXX = Coding variants
- ◆ WSC XXXXX = Dealership number (Will be automatically stored in the control module when entering the system)

- Press → button.

Rapid data transfer

HELP

Enter address word XX



Indicated on display:



Airbag Control Module, coding using V.A.G 1551 scan tool

Coding is only possible when a new control module is used.

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-7](#) .
- Switch on printer with Print button (warning lamp in button lights up).

The Airbag Malfunction Indicator Lamp (MIL) - K75- lights up continuously.

- Press buttons -1- and -5- (the address word of the vehicle system to be tested "Airbag" is entered with 15).

Rapid data transfer q ↵
15 Airbag

Indicated on display:

- Confirm entry with the -Q- button.

6Q0 909 605 A AIRBAG VW 3-OM V03 →
Coding 00000 WSC 00066

Indicated on display (see parts catalog for latest control module version):

- Press → button.

Rapid data transfer HELP ↵
Select function XX

Indicated on display:

- Press buttons -0- and -7- (with 07 the function "Code control module" is selected).

Rapid data transfer q ↵
07 Code control module

Indicated on display:

- Confirm entry with the -Q- button.

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Code control module

Enter code number XXXXX (0-32000)



Indicated on display:

- Enter code number according to table:

Vehicle equipment	Part No.	Index	Code number
Only driver's airbag	1J0 909 603	AP	16720
Only driver's airbag	6Q0 909 601	0B	12354
Driver's/passenger's airbag	1J0 909 603	AN	16718
Driver's/passenger's airbag	6Q0 909 601	0C	12355
Driver's/passenger's airbag	6Q0 909 601	12	12594
Driver's/passenger's airbag USA	6Q0 909 601	0D	12356
Driver's/passenger's airbag USA	1J0 909 603	J	00074
Driver's/passenger's airbag USA (Mexico production)	6Q0 909 601	0M	12365
Driver's/passenger's airbag	6Q0 909 601	1F	12614
Driver's/passenger's airbag USA	6Q0 909 601	1G	12615
Driver's/passenger's airbag USA (Brazil production)	6Q0 909 601	1H	12616
Driver's/passenger's airbag with seat belt detection for switch-over activation limit	6Q0 909 601	1J	12618

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Vehicle equipment	Part No.	Index	Code number
Driver's/passenger's airbag USA	6Q0 909 601	1K	12619
Driver's/passenger's airbag with seat belt detection for switch-over activation limit USA (Brazil production)	6Q0 909 601	1L	12620
Driver's/passenger's airbag	6Q0 909 601	21	12849
Driver's/passenger's airbag USA	6Q0 909 601	22	12850
Driver's/passenger's airbag USA	6Q0 909 601	23	12851
Driver's/passenger's airbag USA (Brazil production)	6Q0 909 601	13	12595
Driver's/ and side airbags	1J0 909 608	AS	16723
Driver's/passenger's and side airbags	1J0 909 608	AR	16722
Driver's/ and side airbags + electr. belt tensioner	1J0 909 609	B	00066
Driver's/ and side airbags + electr. belt tensioner USA	1J0 909 609	C	00067
Driver's/ and side airbags + electr. belt tensioner	6Q0 909 605 A	01	12337

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Vehicle equipment	Part No.	Index	Code number
Driver's/passenger's and side airbags + electr. belt tensioner	6Q0 909 605 A	2B	12866
Driver's/ and side airbags + electr. belt tensioner	6Q0 909 605 A	0E	12357
Driver's/ and side airbags + electr. belt tensioner (Brazil production)	6Q0 909 605 A	2D	12868
Driver's/ passenger's/ and side airbags + electr. belt tensioner	6Q0 909 605 A	2E	12869
Driver's/ passenger's/ and side airbags + electr. belt tensioner	1J0 909 609	A	00065
Driver's/ passenger's/ and side airbags + electr. belt tensioner	6Q0 909 605 A	02	12338
Driver's/ passenger's/ and side airbags + electr. belt tensioner	6Q0 909 605 A	0F	12358
Driver's/ passenger's airbag, side airbags + electr. belt tensioner with seat belt detection for switch-over activation limit	6Q0 909 605 A	0G	12359

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Vehicle equipment	Part No.	Index	Code number
Driver's/ passenger's/ and side airbags + electr. belt tensioner	6Q0 909 605 A	0T	12372
Driver's/ passenger's/ and side airbags + electr. belt tensioner (Brazil production)	6Q0 909 605 A	13	12595
Driver's/ passenger's airbag, side airbags + electr. belt tensioner USA	6Q0 909 605 A	03	12339
Driver's/ passenger's airbag, side airbags + electr. belt tensioner USA (Mexico production)	6Q0 909 605 A	09	12345
Driver's/ passenger's airbag, side airbags + electr. belt tensioner USA (Brazil production)	6Q0 909 605 A	11	12593
Driver's/ passenger's airbag, side airbags + electr. belt tensioner USA	6Q0 909 605 A	12	12594

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Vehicle equipment	Part No.	Index	Code number
Driver's/ passenger's airbag, side airbags + electr. belt tensioner USA (Brazil production)	6Q0 909 605 A	14	12596
Driver's/ passenger's airbag, side airbags + electr. belt tensioner USA	6Q0 909 605 A	21	12849
Driver's/ passenger's airbag, side airbags + electr. belt tensioner (Brazil production)	6Q0 909 605 A	22	12850
Driver's/ passenger's airbag, side airbags + electr. belt tensioner	6Q0 909 605 A	23	12851
Driver's/ passenger's airbag, side airbags + electr. belt tensioner USA (Mexico production)	6Q0 909 605 A	15	12597
Driver's/ passenger's airbag, side airbags + electr. belt tensioner USA (Brazil production) with seat belt detection for switch-over activation limit	6Q0 909 605 A	UM	21837

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Vehicle equipment	Part No.	Index	Code number
Driver's/ passenger's airbag, side airbags + electr. belt tensioner USA (Mexico production) with seat belt detection for switch-over activation limit	6Q0 909 605 A	UN	21838
Driver's/ passenger's airbag, side airbags + electr. belt tensioner USA (Mexico production) with seat belt detection for switch-over activation limit	6Q0 909 605 A	1N	12622
Driver's/ passenger's airbag, side airbags + electr. belt tensioner USA	6Q0 909 605 A	0M	12345
Driver's/ passenger's airbag, side airbags + electr. belt tensioner USA (Brazil production) with seat belt detection for switch-over activation limit	6Q0 909 605 A	1M	12621
Driver's/ side / side curtain airbags + electr. belt tensioner	6Q0 909 605 F	01	12337

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Vehicle equipment	Part No.	Index	Code number
Driver's/ passenger's/ side and side curtain airbags + electr. belt tensioner	6Q0 909 605 F	02	12338
Driver's/ passenger's/ side and side curtain airbags + electr. belt tensioner	6Q0 909 605 F	X1	12337
Driver's/ passenger's/ side and side curtain airbags + electr. belt tensioner USA	6Q0 909 605 F	X4	22580
Driver's/ passenger's airbag, side and side curtain airbags + electr. belt tensioner USA with seat belt detection for switch-over activation limit	6Q0 909 605 F	Y3	22835
Driver's/ passenger's airbag, side and side curtain airbags + electr. belt tensioner USA with seat belt detection for switch-over activation limit	6Q0 909 605 F	Y4	22836

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Vehicle equipment	Part No.	Index	Code number
Driver's/passenger's airbag, side and side curtain airbags	6Q0 909 608	AT	16724
Driver's/ passenger's/ side and side curtain airbags + electr. belt tensioner	6Q0 909 605 F	02	12338
Driver's/ passenger's/ side and side curtain airbags + electr. belt tensioner USA	6Q0 909 605 F	03	12339
Driver's/passenger's airbag, side and side curtain airbags + electr. belt tensioner USA with seat belt detection for switch-over activation limit (Mexico production)	6Q0 909 605 F	04	12340
Driver's/passenger's airbag, side and side curtain airbags + electr. belt tensioner USA (Mexico production)	6Q0 909 605 F	05	12341
Driver's/passenger's airbag, side and side curtain airbags + electr. belt tensioner USA	6Q0 909 605 F	06	12342

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Vehicle equipment	Part No.	Index	Code number
Driver's/passenger's airbag, side and side curtain airbags + electr. belt tensioner USA (Brazil production)	6Q0 909 605 F	07	12343
Driver's/ passenger's airbag, side and side curtain airbags + electr. belt tensioner with seat belt detection for switch-over activation limit USA (Brazil production)	6Q0 909 605 F	08	12344
Driver's/ passenger's airbag, side and side curtain airbags + electr. belt tensioner USA (Mexico production)	6Q0 909 605 F	09	12345
Driver's/ passenger's/ side and side curtain airbags + electr. belt tensioner	6Q0 909 605 F	0A	12353
Driver's/passenger's airbag, side and side curtain airbags + electr. belt tensioner USA (Brazil production)	6Q0 909 605 F	0B	12354
Driver's/ passenger's/ side and side curtain airbags + electr. belt tensioner	6Q0 909 605 F	21	12849

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Vehicle equipment	Part No.	Index	Code number
Driver's/ passenger's airbag, side airbags + electr. belt tensioner (Brazil production)	6Q0 909 605 A	22	12850
Driver's/ passenger's airbag, side airbags + electr. belt tensioner	6Q0 909 605 A	23	12851
Driver's/passenger's airbag	1C0 909 601	1F	12614
Driver's/passenger's airbag (Mexico production)	1C0 909 601	1G	12615
Driver's/passenger's airbag (Brazil production)	1C0 909 601	1H	12616
Driver's/passenger's airbag	1C0 909 601	1J	12618
Driver's/passenger's airbag with seat belt detection for switch-over activation limit USA (Mexico production)	1C0 909 601	1K	12619
Driver's/passenger's airbag with seat belt detection for switch-over activation limit USA (Brazil production)	1C0 909 601	1L	12620
Driver's/passenger's airbag	1C0 909 601	21	12849

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Vehicle equipment	Part No.	Index	Code number
Driver's/passenger's airbag (Brazil production)	1C0 909 601	22	12850
Driver's/passenger's airbag	1C0 909 601	23	12851
Driver's/ passenger's/ side airbags + electr. belt tensioner	1C0 909 605 A	12	12549
Driver's/ passenger's/ side airbags + electr. belt tensioner (Brazil production)	1C0 909 605 A	14	12596
Driver's/ passenger's/ side airbags + electr. belt tensioner (Mexico production)	1C0 909 605 A	15	12597
Driver's/ passenger's/ side airbags + electr. belt tensioner with seat belt detection for switch-over activation limit USA (Brazil production)	1C0 909 605 A	1M	12621

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Vehicle equipment	Part No.	Index	Code number
Driver's/ passenger's/ side airbags + electr. belt tensioner with seat belt detection for switch-over activation limit USA (Mexico production)	1C0 909 605 A	1N	12622
Driver's/ passenger's/ side airbags + electr. belt tensioner with seat belt detection for switch-over activation limit	1C0 909 605 A	0G	12359
Driver's/ passenger's/ side airbags + electr. belt tensioner	1C0 909 605 A	21	12849
Driver's/ passenger's/ side airbags + electr. belt tensioner (Brazil production)	1C0 909 605 A	22	12850
Driver's/ passenger's/ side airbags + electr. belt tensioner (Mexico production)	1C0 909 605 A	23	12851

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Vehicle equipment	Part No.	Index	Code number
Driver's/ passenger's/ side airbags + electr. belt tensioner	1C0 909 605 A	2B	12866
Driver's/ passenger's/ side airbags + electr. belt tensioner (Brazil production)	1C0 909 605 A	2D	12868
Driver's/ passenger's/ side airbags + electr. belt tensioner (Mexico production)	1C0 909 605 A	2E	12869
Driver's/ passenger's/ side and side curtain airbags + electr. belt tensioner	1C0 909 605 F	0A	12353
Driver's/ passenger's/ side and side curtain airbags + electr. belt tensioner (Brazil production)	1C0 909 605 F	0B	12354
Driver's/ passenger's/ side and side curtain airbags + electr. belt tensioner with seat belt detection for switch- over activation limit	1C0 909 605 F	03	12339

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Vehicle equipment	Part No.	Index	Code number
Driver's/ passenger's/ side and side curtain airbags + electr. belt tensioner with seat belt detection for switch- over activation limit (Mexico production)	1C0 909 605 F	04	12340
Driver's/ passenger's/ side and side curtain airbags + electr. belt tensioner (Mexico production)	1C0 909 605 F	05	12341
Driver's/ passenger's/ side and side curtain airbags + electr. belt tensioner	1C0 909 605 F	06	12342
Driver's/ passenger's/ side and side curtain airbags + electr. belt tensioner (Brazil production)	1C0 909 605 F	07	12343

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Vehicle equipment	Part No.	Index	Code number
Driver's/ passenger's/ side and side curtain airbags + electr. belt tensioner with seat belt detection for switch-over activation limit (Brazil production)	1C0 909 605 F	08	12344
Driver's/ passenger's/ side and side curtain airbags + electr. belt tensioner (Mexico production)	1C0 909 605 F	09	12345

- Confirm entry with the -Q- button.

6Q0 909 605 A AIRBAG VW 3-OM V03 →
Coding 12345 WSC 00066



The control module identification number with the relevant letter index, code number and workshop code is displayed.

If the contents of the display are as shown then the coding is successful.

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If the control module code number entered is not accepted, then the "FAULT" and the "code xxxxx not accepted" will be displayed, e.g. 00200:

FAULT



Indicated on display:

Coding 00200 not accepted

In this case the control module has not been programmed with the relevant data for the vehicle. Coding is then not possible. The Airbag Malfunction Indicator Lamp (MIL) -K75- will not extinguish and lights up continuously. A check must then be completed to see if the correct control module for the vehicle has been installed (compare Part No. and letter index), or whether an incorrect code number has been entered.

End output:

- Press → button.

Rapid data transfer

HELP



Indicated on display:

Select function XX

- Press buttons -0- and -6- to end the output.
- Confirm entry with the -Q- button.

Rapid data transfer

Q



Indicated on display:

06 End output

Airbag Malfunction Indicator Lamp (MIL) - K75- must go out after approx. 4 seconds.



Check DTC Memory

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-7](#) .
- Switch on printer with Print button (warning lamp in button lights up).
- Press buttons -0- and -2- (the function "Check DTC memory" is entered with 02).

Rapid data transfer
02 - Check DTC memory

Q



Indicated on display:

- Press "Print" button.
- Confirm entry with the -Q- button.

X DTCs recognized!



The number of stored malfunctions appears in the display.

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

- Enter DTC table at malfunction printed out and repair.

No DTC recognized!

→



If "No DTC recognized" is displayed, the program will return to the initial position after pressing the → button.



Rapid data transfer

HELP



Indicated on display:

If something else is displayed:

Scan tool operating instructions

- End output (function 06) ⇒ ⇒ [Page 01-33](#) .
- Switch off ignition and separate diagnostic connections.

Note:

If a DTC is recognized:

- ◆ 1 . **Repair malfunction**
- ◆ 2. *Erase DTC memory (function 05).*
- ◆ 3. *Check DTC memory again (function 02).*



Erase DTC memory

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-7](#) .
- Switch on printer with Print button (warning lamp in button lights up).

Prerequisites:

- ◆ DTCs are repaired
- ◆ DTC memory checked again
- Press buttons -0- and -5- (the function "Erase DTC memory" is entered with 05).

Rapid data transfer
05 Erase DTC memory

Q



Indicated on display:

- Confirm entry with the -Q- button.

Rapid data transfer
DTC memory is erased!

→



Indicated on display:

- Press → button.

Rapid data transfer
Select function XX

HELP



Indicated on display:

Note:

WARNING!
DTC memory was checked not



- ◆ *If this appears in the display, the test sequence is faulty.*
- ◆ *Adhere strictly to test sequence; first of all check DTC memory, then erase memory.*

01-33



End output

- Press buttons -0- and -6- to end the output.

Rapid data transfer Q
06 End output



Indicated on display:

- Confirm entry with the -Q- button.

Rapid data transfer HELP
Enter address word XX



Indicated on display:

- Switch off ignition.
- Disconnect connector to V.A.G 1551 scan tool.



Diagnostic Trouble Code (DTC) table

Note:

- ◆ *The following table lists all the malfunctions, with the corresponding 5-digit code numbers, that can be recognized by the Airbag Control Module -J234- and printed out by the V.A.G 1551 .*
- ◆ *The most current coding for airbags can only be found using the VAS 5051. To get the control module coding list through Guided Fault Finding press the "Go to" button, and select "Function/Component selection". Follow the prompts through to Functions - Code Airbag Control Module..*
- ◆ *DTC's appear only on print-out.*
- ◆ *Some of the mentioned DTC texts are only displayed on the VAS 5051. On the V.A.G 1551 , only the DTC will be printed in this case.*
- ◆ *The possible malfunctions are dependant on the respective vehicle equipment.*
- ◆ *Before replacing a component shown as malfunctioning, check wiring and connections to the component as well as Ground connections according to wiring diagram.*
- ◆ *Check all relay plate connections are seated securely.*
- ◆ *After completing repairs, the DTC memory must always be re-checked and erased using the V.A.G 1551 scan tool.*
- ◆ *In addition, the malfunction type may also appear in the DTC table.*

V.A.G 1551 display	Possible cause	Corrective action
00000 No DTC recognized	If "No DTC recognized" appears after performing repairs, the On Board Diagnostic (OBD) is ended.	



V.A.G 1551 display	Possible cause	Corrective action
00532 Supply voltage Signal too large Signal too small	Alternator malfunctioning Wiring or connections to Airbag Control Module -J234- Battery discharged or malfunctioning	- Test alternator Electrical Wiring Diagrams, Troubleshooting & Component Locations - Test wiring and connections to control module using wiring diagram - Charge or replace battery

01-36



V.A.G 1551 display	Possible cause	Corrective action
00588 Airbag igniter - driver's side -N95- Resistance too high Resistance too low Short to B+ Short to Ground	Faulty wiring or connections Driver's airbag -N95- malfunctioning Coil connector with slip ring - F138- malfunctioning	- Replace faulty wiring or connections - Replace driver's airbag -N95- - Replace coil connector with slip ring - Read Measuring Value Block ⇒ ⇒ Page 01-69

01-37



V.A.G 1551 display	Possible cause	Corrective action
<p>00589</p> <p>Airbag igniter 1 - passenger's side -N131-</p> <p>Resistance too high</p> <p>Resistance too low</p> <p>Short to B+</p> <p>Short to Ground</p>	<p>Faulty wiring or connections</p> <p>Front passenger's airbag igniter - N131- malfunctioning</p>	<p>- Replace faulty wiring or connections</p> <p>- Replace front passenger's airbag unit -N131-</p> <p>- Read Measuring Value Block ⇒ ⇒ Page 01-69</p>

01-38



V.A.G 1551 display	Possible cause	Corrective action
<p>00591</p> <p>Left Seat Belt Switch -E24-</p> <p>undefined switch condition</p> <p>Short circuit to Ground (GND)</p> <p>Open circuit/short circuit to B+</p>	<p>Faulty wiring or connections</p> <p>Left Front Seatbelt Microswitch - F140- malfunctioning</p>	<p>- Replace faulty wiring or connections</p> <p>- Replace Left Front Seatbelt Microswitch -F140-</p> <p>- Read Measuring Value Block ⇒ ⇒ Page 01-69 Display Group 003</p>

01-39



V.A.G 1551 display	Possible cause	Corrective action
00592 Right Seat Belt Switch -E25- Undefined switch condition Short circuit to Ground (GND) Open circuit/short circuit to B+	Faulty wiring or connections Right Front Seatbelt Microswitch -F141- malfunctioning	- Replace faulty wiring or connections - Replace Right Front Seatbelt Microswitch -F141- - Read Measuring Value Block ⇒ ⇒ Page 01-69 Display Group 003

01-40



V.A.G 1551 display	Possible cause	Corrective action
00594 Airbag igniter circuit Short circuit	Faulty wiring or connections to airbag units	- Read Measuring Value Block ⇒ ⇒ Page 01-69
00595 Crash data stored		- Replace control module - Replace activated airbag units as well as all damaged components

01-41



V.A.G 1551 display	Possible cause	Corrective action
00654 Belt tensioner igniter - driver's side -N153- ¹⁾ Resistance too high Resistance too low Short to B+ Short to Ground	Faulty wiring or connectors Driver's side belt tensioner igniter -N153- malfunctioning	- Read Measuring Value Block ⇒ ⇒ Page 01-69 - Replace driver's side belt tensioner -N153-

¹⁾ Only valid for vehicles with electric belt tensioners, the display is not relevant for vehicles with mechanical belt tensioners.



V.A.G 1551 display	Possible cause	Corrective action
00655 Belt tensioner igniter - passenger's side - N154- ¹⁾ Resistance too high Resistance too low Short to B+ Short to Ground	Faulty wiring or connectors Passenger's side belt tensioner igniter -N154- malfunctioning	- Read Measuring Value Block ⇒ ⇒ Page 01-69 - Replace passenger's side belt tensioner -N154-
00945 Crash sensor for front airbag -G190- ²⁾ Short to Ground	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Faulty airbag control module 	- Check wiring and connectors using wiring diagram - Output can also be checked using Output Diagnostic Test Mode (DTM) ⇒ ⇒ Page 01-87 - Replace airbag control module

¹⁾ Only valid for vehicles with electric belt tensioners, the display is not relevant for vehicles with mechanical belt tensioners.

²⁾ Note: -G190- is internal to airbag control module and cannot be checked separately.

01-43



V.A.G 1551 display	Possible cause	Corrective action
01025 Malfunction warning lamp activation malfunctioning	Malfunction warning lamp malfunctioning Faulty wiring or connections control module malfunctioning	- Replace instrument cluster - Replace faulty wiring or connections control module malfunctioning
01044 Control module incorrectly coded	Control module is not designed for this vehicle	- Install a control module appropriate for the vehicle equipment according to parts catalog

01-44



V.A.G 1551 display	Possible cause	Corrective action
<p>01211</p> <p>Igniter for belt tensioner rear, drivers side -N196-</p> <p>Resistance too high</p> <p>Resistance too low</p> <p>Short to B+</p> <p>Short to Ground</p>	<p>Faulty wiring or connections</p> <p>Igniter for belt tensioner rear, drivers side -N196- malfunctioning</p>	<p>- Replace faulty wiring or connections</p> <p>- Replace Igniter for belt tensioner rear, drivers side - N196-</p> <p>- Read Measuring Value Block ⇒ ⇒ Page 01-69</p>

01-45



V.A.G 1551 display	Possible cause	Corrective action
<p>01212</p> <p>Igniter for belt tensioner rear, passenger side - N197-</p> <p>Resistance too high</p> <p>Resistance too low</p> <p>Short to B+</p> <p>Short to Ground</p>	<p>Faulty wiring or connections</p> <p>Igniter for belt tensioner rear, passenger side -N197- malfunctioning</p>	<p>- Replace faulty wiring or connections</p> <p>- Replace Igniter for belt tensioner rear, passenger side -N197-</p> <p>- Read Measuring Value Block ⇒ ⇒ Page 01-69</p>

01-46



V.A.G 1551 display	Possible cause	Corrective action
01214 Crash data seat belt tensioner stored		<ul style="list-style-type: none">- Erase DTC, if DTC will not erase, replace Airbag Control Module (Side impact data can be cleared up to 2 times, once after each occurrence of crash data stored. In the event of a 3rd occurrence of side impact crash data, the Airbag Control Module must be replaced.)- Replace deployed seat belt tensioners and all damaged components, as applicable.

01-47



V.A.G 1551 display	Possible cause	Corrective action
01217 Driver's, side airbag igniter -N199- Resistance too high Resistance too low Short to B+ Short to Ground	Faulty wiring or connections Driver's side, side airbag igniter - N199- malfunctioning	- Replace faulty wiring or connections - Replace driver's side, side airbag -N199- - Read Measuring Value Block ⇒ ⇒ Page 01-69

01-48



V.A.G 1551 display	Possible cause	Corrective action
01218 Front passenger's, side airbag igniter -N200- Resistance too high Resistance too low Short to B+ Short to Ground	Faulty wiring or connections Passenger's side, side airbag igniter -N200- malfunctioning	- Replace faulty wiring or connections - Replace passenger's side, side airbag -N200- - Read Measuring Value Block ⇒ ⇒ Page 01-69

01-49



V.A.G 1551 display	Possible cause	Corrective action
<p>01219</p> <p>Igniter for side airbag rear, drivers side -N201-</p> <p>Resistance too high</p> <p>Resistance too low</p> <p>Short to B+</p> <p>Short to Ground</p>	<p>Faulty wiring or connections</p> <p>Igniter for side airbag rear, drivers side -N201- malfunctioning</p>	<p>- Replace faulty wiring or connections</p> <p>- Replace Igniter for side airbag rear, drivers side - N201-</p> <p>- Read Measuring Value Block ⇒ ⇒ Page 01-69</p>

01-50



V.A.G 1551 display	Possible cause	Corrective action
<p>01220</p> <p>Igniter for side airbag rear, passenger side - N202-</p> <p>Resistance too high</p> <p>Resistance too low</p> <p>Short to B+</p> <p>Short to Ground</p>	<p>Faulty wiring or connections</p> <p>Igniter for side airbag rear, passenger side -N202- malfunctioning</p>	<p>- Replace faulty wiring or connections</p> <p>- Replace Igniter for side airbag rear, passenger side - N202-</p> <p>- Read Measuring Value Block ⇒ ⇒ Page 01-69</p>

01-51



V.A.G 1551 display	Possible cause	Corrective action
<p>01221</p> <p>Driver's side, side airbag crash sensor -G179-</p> <p>Short to B+</p> <p>Short to Ground</p> <p>malfunctioning</p> <p>No adjustment or incorrect adjustment</p>	<p>Faulty wiring or connections</p> <p>Crash sensor malfunctioning</p> <p style="text-align: center;">control module malfunctioning</p> <p>Crash sensor not coded or incorrectly coded</p>	<p>- Replace faulty wiring or connections</p> <p>- Replace damaged component</p> <p>- Replace crash sensor</p> <p>- Read Measuring Value Block ⇒ ⇒ Page 01-69</p>

01-52



V.A.G 1551 display	Possible cause	Corrective action
<p>01222</p> <p>Passenger's side, side airbag crash sensor -G180-</p> <p>Short to B+</p> <p>Short to Ground</p> <p>malfunctioning</p> <p>No adjustment or incorrect adjustment</p>	<p>Faulty wiring or connections</p> <p>Crash sensor malfunctioning</p> <p>control module malfunctioning</p> <p>Crash sensor not programmed or incorrectly programmed</p>	<p>- Replace faulty wiring or connections</p> <p>- Replace damaged component</p> <p>- Replace crash sensor</p> <p>- Read Measuring Value Block ⇒ ⇒ Page 01-69</p>

01-53



V.A.G 1551 display	Possible cause	Corrective action
01224 Equipment incorrectly adjusted	Control module does not correspond to the equipment of the vehicle (number of airbags in vehicle)	- Install a control module corresponding to the vehicle equipment according to parts catalog
01226 Crash data side airbag, driver's side stored		- Erase DTC memory or replace control module - In case of side airbag activation, the signal "Crash data side airbag driver's side stored" can be reset twice via erasing DTC memory after the 3. side airbag activation the malfunction "control module malfunctioning" will be set and the control module must be replaced - Replace airbag unit and all damaged components

01-54



V.A.G 1551 display	Possible cause	Corrective action
01227 Crash data side airbag, passenger side stored		<ul style="list-style-type: none">- Erase DTC memory or replace control module- In case of side airbag activation, the signal "Crash data side airbag passenger side stored" can be reset twice via erasing DTC memory after the 3. side airbag activation the malfunction "control module malfunctioning" will be set and the control module must be replaced- Replace airbag unit and all damaged components

01-55



V.A.G 1551 display	Possible cause	Corrective action
<p>01228</p> <p>Key switch for switching off passenger side airbag -E224-</p> <p>Undefined switch condition</p> <p>Short circuit</p> <p>Open circuit</p>	<p>Faulty wiring or connections</p> <p>Key switch for switching off passenger side airbag -E224- malfunctioning</p> <p>Passenger side airbag malfunctioning</p>	<p>- Replace faulty wiring or connections</p> <p>- Replace Key switch for switching off passenger side airbag -E224-</p> <p>- Replace passenger side airbag</p> <p>- Read Measuring Value Block ⇒ ⇒ Page 01-69</p>

01-56



V.A.G 1551 display	Possible cause	Corrective action
01280 ¹⁾ Front passenger's airbag is deactivated	Front passenger's airbag not functional	- Control module was matched
01281 ¹⁾ Driver's airbag is deactivated	Driver's airbag not functional	- Control module was matched
01284 ¹⁾ Driver's side airbag is deactivated	Driver's side airbag not functional	- Control module was matched
01285 ¹⁾ Front passenger's side airbag is deactivated	Passenger's side airbag not functional	- Control module was matched
01286 ¹⁾ Driver's belt tensioner is deactivated	Driver's belt tensioner not functional	- Control module was matched
01287 ¹⁾ Front passenger's belt tensioner is deactivated	Front passenger's belt tensioner not functional	- Control module was matched

¹⁾ The DTC message will only be stored in the DTC memory when the matching is activated.



V.A.G 1551 display	Possible cause	Corrective action
<p>01299 Diagnostic interface for databus No communication</p> <p>No adjustment or incorrect adjustment</p>	<p>Faulty wires or harness connectors</p> <p>Data Bus On Board Data Bus On Board Diagnostic Interface -J533- malfunctioning</p> <p>Data Bus On Board Data Bus On Board Diagnostic Interface -J533- in instrument cluster is not coded or incorrectly coded</p>	<p>- Repair or replace faulty wires or harness connectors</p> <p>- Check Data Bus On Board Data Bus On Board Diagnostic Interface -J533- and replace if necessary (replace instrument cluster)</p> <p>⇒ <i>Repair Manual, Electrical Equipment On Board Diagnostic (OBD), Repair Group 01; Diagnostic interface for databus</i></p> <p>- Perform or check coding of Data Bus On Board Data Bus On Board Diagnostic Interface -J533-</p> <p>⇒ <i>Repair Manual, Electrical Equipment On Board Diagnostic (OBD), Repair Group 01</i></p>

01-58



V.A.G 1551 display	Possible cause	Corrective action
01312 Data bus drive malfunctioning	Faulty wires or harness connectors Coding for control modules is not OK Data Bus On Board Diagnostic Interface -J533- malfunctioning	- Repair or replace faulty wires or harness connectors Electrical Wiring Diagrams Troubleshooting & Component Locations - Check coding of the control modules, check DTC memory of all control modules. - Check Data Bus On Board Diagnostic Interface -J533- and replace if necessary (replace instrument cluster) ⇒ Repair Manual, Electrical Equipment On Board Diagnostic (OBD), Repair Group 01; Diagnostic interface for databus

01-59



V.A.G 1551 display	Possible cause	Corrective action
01317 Control module in dash panel insert - J285- No communication	Faulty wiring or connections Coding for control modules is not OK Data Bus On Board Diagnostic Interface -J533- malfunctioning	- Replace or repair faulty wiring or connections - Check coding of the control modules, check DTC memory of all control modules - Check Data Bus On Board Diagnostic Interface -J533- and replace if necessary (replace instrument cluster) ⇒ Repair Manual, Electrical Equipment On Board Diagnostic (OBD), Repair Group 01; Diagnostic interface for databus

01-60



V.A.G 1551 display	Possible cause	Corrective action
<p>01578</p> <p>Warning light for airbag off, passenger side - K145-</p> <p>Short circuit to B+</p> <p>Open circuit</p>	<p>Faulty wiring or connections</p> <p>Warning light for airbag off, passenger side -K145- malfunctioning</p>	<p>- Replace faulty wiring or connections</p> <p>- Replace Warning light for airbag off, passenger side - K145-</p> <p>- Read Measuring Value Block ⇒ ⇒ Page 01-69</p>

01-61



V.A.G 1551 display	Possible cause	Corrective action
<p>01588</p> <p>Igniter for driver's side, side curtain protection -N251-</p> <p>Resistance too high</p> <p>Resistance too low</p> <p>Short to B+</p> <p>Short to Ground</p>	<p>Faulty wiring or connections</p> <p>Side curtain protection igniter - N251- malfunctioning</p>	<p>- Replace faulty wiring or connections</p> <p>- Replace side curtain protection -N251-</p> <p>- Read Measuring Value Block ⇒ ⇒ Page 01-69</p>

01-62



V.A.G 1551 display	Possible cause	Corrective action
<p>01589</p> <p>Igniter for front passenger's airbag -N252-</p> <p>Resistance too high</p> <p>Resistance too low</p> <p>Short to B+</p> <p>Short to Ground</p>	<p>Faulty wiring or connections</p> <p>Side curtain protection igniter - N252- malfunctioning</p>	<p>- Replace faulty wiring or connections</p> <p>- Replace side curtain protection -N252-</p> <p>- Read Measuring Value Block ⇒ ⇒ Page 01-69</p>

01-63



V.A.G 1551 display	Possible cause	Corrective action
01634 ¹⁾ Igniter for battery interruption switched off	Igniter for battery interruption not functioning	Control module was adapted
01635 Crash data for igniter for battery interruption stored		<ul style="list-style-type: none"> - Erase DTC memory or replace control module - In case of battery interruption, the signal "Crash data for igniter for battery interruption" can be reset twice via erasing DTC memory after the 3. battery interruption activation the malfunction "control module malfunctioning" will be set and the control module must be replaced - Replace battery interruption and all damaged components

¹⁾ DTC is only stored in DTC memory during activated adaptation.

01-64



V.A.G 1551 display	Possible cause	Corrective action
<p>01638</p> <p>Rear side airbag crash sensor -G256-, driver's side</p> <p>Short to B+</p> <p>Short to Ground</p> <p>malfunctioning</p> <p>No adjustment or incorrect adjustment</p>	<p>Faulty wiring or connections</p> <p>Crash sensor malfunctioning</p> <p>control module malfunctioning</p> <p>Crash sensor not programmed or incorrectly programmed</p>	<p>- Replace faulty wiring or connections</p> <p>- Replace damaged component</p> <p>- Replace crash sensor</p> <p>- Read Measuring Value Block ⇒ ⇒ Page 01-69</p>

01-65



V.A.G 1551 display	Possible cause	Corrective action
01639 Rear side airbag crash sensor -G257-, passenger's side Short to B+ Short to Ground malfunctioning no adjustment or incorrect adjustment	Faulty wiring or connections Crash sensor malfunctioning control module malfunctioning Crash sensor not programmed or incorrectly programmed	- Replace faulty wiring or connections - Replace damaged component - Replace crash sensor - Read Measuring Value Block ⇒ ⇒ Page 01-69

01-66



V.A.G 1551 display	Possible cause	Corrective action
01644 ¹⁾ Driver-side rear airbag is deactivated	Driver-side rear airbag not functioning	Control module was adapted
01645 ¹⁾ Passenger-side rear airbag is deactivated	Passenger-side rear airbag not functioning	Control module was adapted
01646 ¹⁾ Driver-side side curtain airbag is deactivated	Driver-side side curtain airbag not functioning	Control module was adapted
01647 ¹⁾ Passenger-side side curtain airbag is deactivated	Passenger-side side curtain airbag not functioning	Control module was adapted
01648 ¹⁾ Driver-side rear seatbelt tensioner is deactivated	Driver-side rear seatbelt tensioner not functioning	Control module was adapted
01649 ¹⁾ Passenger-side rear seatbelt tensioner is deactivated	Passenger-side rear seatbelt tensioner not functioning	Control module was adapted

¹⁾ DTC is only stored in DTC memory during activated adaptation.

01-67



V.A.G 1551 display	Possible cause	Corrective action
01650 Crash data side airbag, rear, driver-side stored		<ul style="list-style-type: none"> - Erase DTC memory or replace control module - In case of side airbag activation, the signal "Crash data side airbag, rear driver's side" can be reset twice via erasing DTC memory - after the 3rd. side airbag activation the malfunction "control module malfunctioning" will be set and the control module must be replaced
01651 Crash data side airbag, rear, passenger-side stored		<ul style="list-style-type: none"> - Erase DTC memory or replace control module - In case of side airbag activation, the signal "Crash data side airbag, rear passenger side" can be reset twice via erasing DTC memory after the 3rd. side airbag activation the malfunction "control module malfunctioning" will be set and the control module must be replaced - Replace airbag unit and all damaged components

01-68



V.A.G 1551 display	Possible cause	Corrective action
65535 Control module malfunctioning	Control module malfunctioning	- Replace control module

01-69



Read Measuring Value Block

WARNING!

- ◆ **Only visual check of wiring!**
- ◆ **Do not carry out electrical continuity tests or measurements to ignition circuits!**
- ◆ **Only check wiring with ignition switched off!**

Rapid data transfer
Select function XX

HELP



Indicated on display:

- Press buttons -0- and -8- (08 initiates the "Read Measuring Value Block" function).

Rapid data transfer
08 Read Measuring Value Block

Q



Indicated on display:

- Confirm entry with the -Q- button.

Read Measuring Value Block
Input display group number XXX

HELP



Indicated on display:

- Select relevant display group number and confirm entry with -Q- button.

Read Measuring Value Block 1



Indicated on display: (1 to 4 = Display zones)

1 2 3 4

01-70



The explanation of the individual display zones on the display is found in the evaluation of display group numbers ⇒ ⇒ [Page 01-72](#) .

Note:

Some of the indicated display groups are only meaningful for respective vehicle equipment (e.g. side airbag).

If the displayed values in all display zones are "correct":

- Press → button.

Rapid data transfer

HELP



Indicated on display:

Select function XX

Note:

Check DTC memory after completing the function "Read Measuring Value Block" ⇒ ⇒ [Page 01-30](#) .

01-71



Display group 001

Display group 001						
Read Measuring Value Block 1				→ ◀ Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	◀ Display zones	Specification	Evaluation
				Igniter, front passenger belt tensioner -N154- ¹⁾	Correct or not installed	⇒ ⇒ Page 01-72
				Igniter, driver's belt tensioner -N153- ¹⁾	Correct or not installed	
				Igniter, front passenger's airbag	Correct or not installed	
				Igniter, driver's airbag	Correct	

¹⁾ Only valid for vehicles with electrical seat belt tensioners, for vehicles with mechanical seat belt tensioners the display indication has no meaning i.e. "not installed" will be displayed.

01-72



Evaluation for display group number 001

Display zone	Designation	Display contents	Corrective action
1	Igniter for airbag (driver's side) - N95-	<p>Correct</p> <p>Trig. Ground</p> <p>Trig. positive</p> <p>Too low</p>	<p>- No DTC's present</p> <p>- Visual check of wiring</p> <p>- Watch display and check connectors of appropriate current circuit for correct engagement and tight fit. If display changes to "correct", erase DTC memory</p> <p>- Pull igniter connector off airbag unit</p> <p>Display changes to "too high"</p> <p>- Replace airbag unit</p> <p>Display remains on "too low"</p> <p>- Separate connector on coil connector with slip ring</p> <p>Display changes to "too high"</p> <p>- Replace coil connector with slip ring</p> <p>Display remains on "too low"</p> <p>- Replace wiring harness</p>
			Continued on next page

01-73



Display zone	Designation	Display contents	Corrective action
1		Too high	<ul style="list-style-type: none"> - Pull igniter connector off airbag unit - Fit igniter connector onto inert igniter on VAS 5056B ⇒ ⇒ Page 01-85 . <p>Display changes to "correct"</p> <ul style="list-style-type: none"> - Replace airbag unit <p>Display remains on "too high"</p> <ul style="list-style-type: none"> - Pull off connector between wiring harness and coil connector with slip ring - Connect test box VAS 5056B to driver's circuit wiring harness instead of coil connector with slip ring ⇒ ⇒ Page 01-85 . <p>Display changes to "correct"</p> <ul style="list-style-type: none"> - Replace coil connector with slip ring <p>Display remains on "too high"</p> <ul style="list-style-type: none"> - Press button on VAS 5056B <p>Display changes to "too high"</p> <ul style="list-style-type: none"> - Replace wiring harness
			Continued on next page

01-74



Display zone	Designation	Display contents	Corrective action
2	Igniter for airbag (front passenger's) - N131-	<p>Correct</p> <p>Trig. Ground</p> <p>Trig. positive</p> <p>Too low</p> <p>Too high</p>	<p>No DTC's present</p> <p>- Visual check of wiring</p> <p>- Watch display and check connectors of appropriate current circuit for correct engagement and tight fit. If display changes to "correct", erase DTC memory</p> <p>- Separate connector between wiring harness and adapter cable to airbag unit</p> <p>Display changes to "too high"</p> <p>- Replace airbag unit</p> <p>Display remains on "too low"</p> <p>- Replace wiring harness</p> <p>- Connect test box VAS 5056B to passenger's circuit wiring harness ⇒ ⇒ Page 01-85 .</p> <p>- Press button on VAS 5056B</p> <p>Display changes to "too low"</p> <p>- Replace airbag unit</p> <p>Display remains on "too high"</p> <p>- Replace wiring harness</p>

01-75



Display zone	Designation	Display contents	Corrective action
3	Igniter driver's belt tensioner -N153- ¹⁾	Correct Too high Too low Trig. Ground Trig. positive not installed	- Visual check of wiring - Watch display and check connectors of appropriate current circuit for correct engagement and tight fit. If the display changes to "correct", erase DTC memory - Replace driver's/front passenger's belt tensioner
4	Igniter front passenger's belt tensioner -N154- ¹⁾	Correct Too high Too low Trig. Ground Trig. positive not installed	

¹⁾ Only valid for vehicles with electrical seat belt tensioners, for vehicles with mechanical seat belt tensioners the display indication has no meaning i.e. "not installed" will be displayed.

01-76



Display group 003

Display group 003						
Read Measuring Value Block 3				→ ◀ Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	◀ Display zones	Specification	Evaluation
				Right Front Seatbelt Microswitch -F141	not installed or belt: yes belt: no	
				Left Front Seatbelt Microswitch - F140	not installed or belt: yes belt: no	
				Front passenger's seat occupied recognition	not installed	
				Voltage supply	correct	⇒ ⇒ Page 01-77

01-77



Evaluating display group number 003

Display zone	Designation	Display contents	Corrective action
1	Voltage supply	correct too low too high	- Battery voltage min. 9 Volt - Check alternator Electrical Wiring Diagrams, Troubleshooting & Component Locations - Check voltage regulator Electrical wiring diagrams & Component locations - Visual check of wiring
2	Passenger side seat occupant detection	not installed	no malfunction present
			Continued on next page

01-78



Display zone	Designation	Display contents	Corrective action
3	Left Front Seatbelt Microswitch - F140-	not installed belt: yes belt: no too high too low to Ground (GND) to B+ not defined	<ul style="list-style-type: none"> If the switch is not installed or if "belt yes" is displayed with belt tongue inserted or "belt no" with the belt tongue not inserted, no malfunction is present - Visual check of wiring - Check harness connectors of the respective electrical circuit for proper and secure seating and observe the display at the same time If the display content changes to "correct", erase DTC memory
4	Right Front Seatbelt Microswitch - F141-	not installed belt: yes belt: no too high too low to Ground (GND) to B+ not defined	- Replace faulty wires or harness connectors - Replace driver- or passenger-side belt buckle switch



Display group 005

Display group 005						
Read Measuring Value Block 5				→	◀ Indicated on display	
xxx	xxx	xxx	xxx			
1	2	3	4	◀ Display zones	Specification	Evaluation
				Rear near side, side airbag igniter -N202-	not installed	
				Rear off side, side airbag igniter - N201-	not installed	
				Front passenger's, side airbag igniter - N200-	correct	⇒ ⇒ Page 01-80
				Driver's, side airbag igniter -N199-	correct	

01-80



Evaluating display group number 005

Display zone	Designation	Display contents	Corrective action
1	Driver's side, side airbag igniter -N199-	correct too high too low Trig. Ground Trig. positive	- Visual check of wiring - Watch display and check connectors of appropriate current circuit for correct engagement and tight fit. If display changes to "correct", erase DTC memory. - Replace faulty wiring or connections
2	Front passenger's side, side airbag igniter -N200-	correct too high too low Trig. Ground Trig. positive	- Replace driver's or front passenger's side, side airbag
3	Igniter for side airbag rear, drivers side - N201-	not installed	no malfunction present
4	Igniter for side airbag rear, passenger side - N202-	not installed	

01-81



Display group 007

Display group 007						
Read Measuring Value Block 7				→ Indicated on display		
xxx	xxx	xxx	xxx	← Display zones		Evaluation
1	2	3	4	empty ¹⁾		
				empty ¹⁾		
Front passenger's side, side curtain protection igniter -N252-				correct or not installed		⇒ ⇒ Page 01-82
Driver's side, side curtain protection igniter -N251-				correct or not installed		

¹⁾ Empty means: empty display field

01-82



Evaluating display group number 007

Display zone	Designation	Display contents	Corrective action
1	Driver's side, side curtain protection igniter -N251-	correct too high too low Trig. Ground Trig. positive	- Visual check of wiring - Watch display and check connectors of appropriate current circuit for correct engagement and tight fit. If display changes to "correct", erase DTC memory. - Replace faulty wiring or connections
2	Front passenger's side, side curtain protection igniter -N252-	correct too high too low Trig. Ground Trig. positive	- Replace driver's or front passenger's side, side curtain protection



Display group 009

Display group 009						
Read Measuring Value Block 9				→ ◀ Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	◀ Display zones	Specification	Evaluation
				Identification Right Rear Side Airbag Crash Sensor -G257-	e.g. 02 or not installed	⇒ ⇒ Page 01-84
				Identification Left Rear Side Airbag Crash Sensor -G256-	e.g. 02 or not installed	
				Identification Crash sensor for side airbag, passenger side -G180-	e.g. 02 or not installed	
				Identification Crash sensor for side airbag, drivers side -G179-	e.g. 02 or not installed	



Evaluating display group number 009

Display zone	Designation	Display contents	Corrective action
1	Identification Crash sensor for side airbag, drivers side -G179-	e.g. 02 or not installed	<ul style="list-style-type: none"> Displayed identification number of crash sensor (for side crash) must match the displayed version number of the crash sensor when control module version is displayed ⇒ ⇒ Page 01-10 - If the identification numbers of the crash sensors and the displayed version number for control module identification do not match, the crash sensors or the control module must be replaced
2	Identification Crash sensor for side airbag, passenger side - G180-	e.g. 02 or not installed	
3	Identification Left Rear Side Airbag Crash Sensor -G256-	e.g. 02 or not installed	
4	Identification Right Rear Side Airbag Crash Sensor -G257-	e.g. 02 or not installed	

01-85



VAS 5056B test box

It is possible to check the individual components of the airbag system with test box VAS 5056B and to check which components are actually malfunctioning.

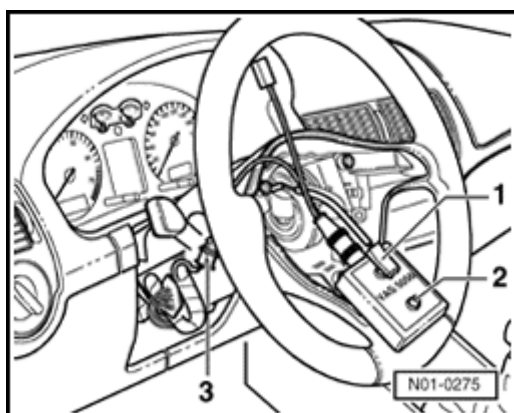
Note:

- ◆ *Observe safety measures when working on airbag.*

⇒ [Repair Manual, Body Interior, Repair Group 69; Airbag; Safety measures when working on airbag](#)

Connecting test box to driver's airbag components

Driver's airbag and steering column switch lower trim removed.



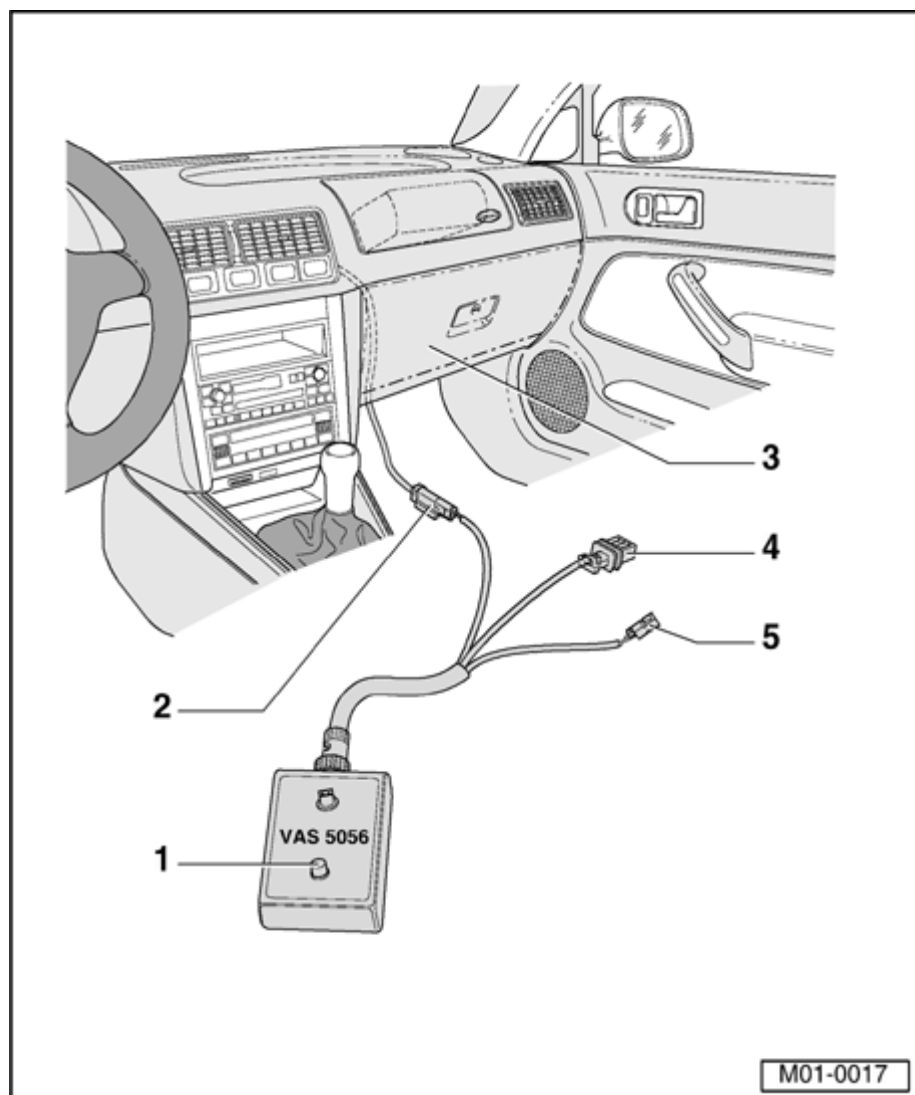
- Connect igniter connector to inert igniter -1- and separate wiring harness to coil connector with slip ring. Connect connector -3- from VAS 5056/3 with airbag wiring harness.

1 - Igniter connector on inert igniter

2 - Key

3 - Coil connector with slip ring connector

01-86



Connecting test box to passenger airbag components

- Remove glove compartment - 10 -

⇒ [Repair Manual, Body Interior, Repair Group. 68; Compartments, covers and trims; removing glove compartment](#)

- Disconnect wiring harness to airbag unit and connect yellow 2-pin connector of VAS 5056/3 with the wiring harness/passenger-side airbag.

1 - Switch

2 Connector for - wiring harness/passenger-side airbag

3 - Glove compartment

4 - Connector (without meaning)

5 - Connector (without meaning)



Output Diagnostic Test Mode (DTM)

The function "Crash output" is checked with Output Diagnostic Test Mode (DTM).

When airbags are ignited the central locking is switched to "unlock", the interior lights are switched "on" and the engine switched off.

Note:

- ◆ *Before performing the Output Diagnostic Test Mode (DTM), switch central locking to "lock" (operate interior lock switch).*
- ◆ *Switch interior light switch to position "door contact".*
- ◆ *Start engine.*
- ◆ *After completing the Output Diagnostic Test Mode (DTM) the central locking controls are not active until the ignition has been switched off and on again.*

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) .

01-88



Perform function "03 Output Diagnostic Test Mode (DTM)"

Rapid data transfer HELP
Select function XX



Indicated on display:

- Press buttons -0- and -3-

Rapid data transfer Q
03 Output Diagnostic Test Mode (DTM)



Indicated on display:

- Confirm entry with the -Q- button.

Output Diagnostic Test Mode (DTM) . →
Crash signal



Indicated on display:

The engine stops, the central locking must switch to "unlock" and the interior lights must switch "on".

Output Diagnostic Test Mode (DTM) . →
END



Indicated on display:

- Press → button.

During test and assembly work malfunctions can be recognized from other control modules like e.g. plug disconnected. Therefore on completion the DTC memories of all control modules must be checked and erased. To do this:

- Press button -0- twice for address word "Automatic test sequence" and confirm entry with -Q- button. The V.A.G 1551 transmits all known address words one after the other.

When a control module answers with its identification the number of stored malfunctions appears on the display or "No DTC recognized".

01-89



Any system malfunctions that are stored will be displayed one after the other and printed out. The V.A.G 1551 will then transmit the next address word.

V.A.G - ON BOARD DIAGNOSTIC HELP

1 - Rapid data transfer

2 - Blink code output



Indicated on display ¹⁾

¹⁾ Operating modes 1 and 2 are displayed alternately

Note:

If a DTC is recognized:

- ◆ 1 . **Repair malfunction**
- ◆ 2. *Erase DTC memory (function 05).*
- ◆ 3. *Check DTC memory again (function 02).*



Convenience system (vehicles with power windows), On Board Diagnostic (OBD)

Functional description

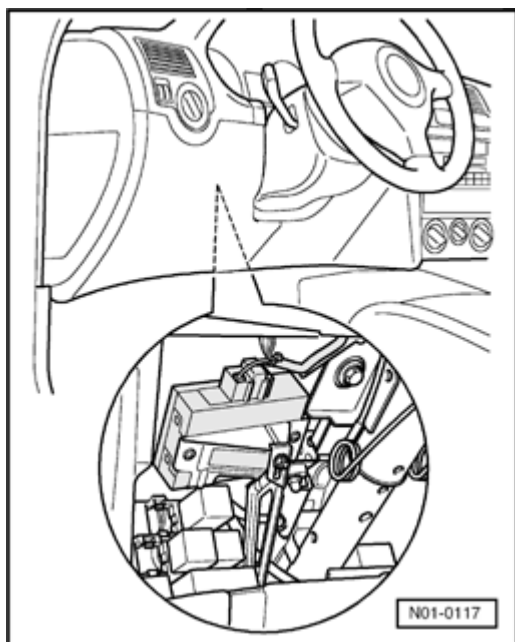
The locking units located in the doors (door lock) have an electric motor.

The motor locks the door and also takes care of the "Safe" condition, i.e. after locking at an external lock (door lock, tailgate, radio remote control) the vehicle is protected against theft and can no longer be unlocked from the interior. The feedback on the respective condition in control module occurs via the contact switch in the locking unit.

All the known convenience functions can be performed with the electric convenience system, interior lights control, ATA with interior monitoring (see description of system on ⇒ ⇒ [Page 01-94](#)), electric windows, mirror and the radio remote control.

If the Airbag Control Module is triggered, a signal is sent to the convenience control module to unlock the doors.

01-91



✦ The Convenience System Control Module - J393- is located under the instrument panel and is secured with a bracket to the steering column. It is equipped with a DTC memory. The On Board Diagnostic (OBD) connection is located under the driver's knee bar to left of the steering wheel.

The control module recognizes DTC's and malfunctions in the central locking convenience system (convenience system includes central locking, anti-theft alarm, electric windows, radio wave remote control, mirror) and stores them in a non-volatile memory.

Testers V.A.G 1551 and 1552 can be used to check the DTC memories and code the control modules as well as the function On Board Diagnostic (OBD) of the VAS 5051.

The function "Guided Troubleshooting" of the VAS 5051 should be used for troubleshooting in diagnostic capable systems. Using this system a systematic malfunction check is guaranteed, from the fuses via wiring, connections in the current path.:

Operating instructions for VAS 5051 Vehicle Diagnosis, Testing and Information System.

01-92



The malfunction information displayed is used to refer to a DTC table with notes on the possible causes for directed repair measures.

Malfunctions which can be attributed to a temporary open circuit in the wiring or a loose contact, will also be stored. These malfunctions will be displayed as sporadic DTCs "SP".

Only statistical malfunctions are considered:

- ◆ Central locking inoperative
- ◆ Mirror positioning motor inoperative
- ◆ Electric window positioning motor inoperative
- ◆ CAN-bus communication inoperative

Note:

Before changing a component erase DTC memory, perform functional checks and check DTC memory again.



Determining which source has possibly triggered the anti-theft alarm

The breakdown of the display content illustrated on ⇒ ⇒ [Page 01-197](#) for display group number 15 for vehicles through 05.01, and ⇒ ⇒ [Page 01-283](#) display group number 16 for vehicles from 06.01 on gives information as to which component triggered the alarm system last, and can therefore help the troubleshooting/repair.

This "DTC memory" cannot be erased.

01-94



Interior monitoring system, description

The interior monitoring system is an integral part of the anti-theft alarm system. The system consists of two sensors into which the function of the rear reading lights are integrated. Setting the operating mode of the reading lights is performed on each of the sensors separately.

The interior sensors work on the ultrasonic wave principle. The alarm of the anti-theft alarm system will be triggered if movement is detected in the interior when the system is active.

The interior sensors can be switched off via a switch in the B pillar/door sill and via the adaptation (function 10, channel number 05). To do this the ignition key must be withdrawn from the ignition switch, then operate switch and lock the vehicle.

The sensors will be switched on again the next time the vehicle is unlocked.

A waiting time of at least 30 seconds must be observed before commencing tests when the vehicle is locked.

01-95



System active indicator

The optical central locking system active indicator is via an additional LED in the upper part of the driver's door inner trim. The LED flashes for a period of time and then goes out.

When the LED is activated it will differentiate between the following functions:

- Central locking using SAFE system (lock once) LED activation then 50ms on and 950ms off, when the safe condition is obtained
- Central locking not using SAFE system (lock twice) LED goes out.

The anti-theft alarm system (ATA) is not always displayed.



Convenience system, initiating On Board Diagnostic (OBD)

Test prerequisites:

- ◆ Voltage supply and fuses S111 and S144 for the respective system OK.
- ◆ To initiate the On Board Diagnostic (OBD) the ignition must be switched on "Terminal 15 on".

Note:

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

Electrical Wiring Diagrams, Troubleshooting & Component Locations

- ◆ *Additional operating information can be printed out depending on the program by pressing the HELP button of V.A.G 1551 .*
- ◆ *The → button is used for advancing the program sequence.*
- ◆ *The PRINT button is used for switching on the printer (warning lamp in button lights up).*

- Connect scan tool ⇒ ⇒ [Page 01-3](#) .
- Switch on ignition.
- Switch on printer with Print button (warning lamp in button lights up).

01-97



- Press button -1- for "Rapid data transfer" mode.

Rapid data transfer HELP
Enter address word XX



Indicated on display:

Address word for the convenience system: 46

Rapid data transfer HELP
Enter address word XX



Indicated on display:

- Press buttons -4- and -6-.

Rapid data transfer Q
46 Convenience system



Indicated on display after entering the address word 46:

- Confirm entry with the Q button.

and then the following appears in the display:

Rapid data transfer
Tester sends the address word 46



Indicated on display:

1J0959799J 03 Conv. cent. CU 0001 →
Coding XXXXX WSC XXXXX



The control module identification of the Central control module for comfort system - J393- (Conv. cent. CU) will be shown on the V.A.G 1551 scan tool display, e.g.:

01-98



At this point the program can be advanced with the -C- button to the option "Rapid data transfer, select function".

- Press → button.

Please wait

◀ Will appear briefly in display:

and then the following appears in the display:

1J0959801A 03 Door CU DS0022 →

◀ The control module identification of the driver's door control module will be shown on the V.A.G 1551 scan tool display, e.g.:

- Press → button.

Please wait

◀ Will appear briefly in display:

and then the following appears in the display:

1J0959802B 03 Door CU PS0022 →

◀ The control module identification of the passenger's door control module will be shown on the V.A.G 1551 scan tool display, e.g.:

01-99



- Press → button.
- Please wait <
- Will appear briefly in display:
- and then the following appears in the display:
- 1J0959811A 03 Door CU RL0022 → <
- The control module identification of the rear left door control module will be shown on the V.A.G 1551 scan tool display, e.g.:
- Press → button.
- Please wait <
- Will appear briefly in display:
- and then the following appears in the display:
- 1J0959812A 03 Door CU RR0022 → <
- The control module identification of the rear right door control module will be shown on the V.A.G 1551 scan tool display, e.g.:
- Press → button.
- Rapid data transfer HELP <
- Select function XX Indicated on display:



Selectable functions, overview

	page
01 - Check Control Module Version	⇒ Page 01-101
02 - Check DTC Memory	⇒ Page 01-110
03 - Output Diagnostic Test Mode	⇒ Page 01-247
05 - Erase DTC memory	⇒ Page 01-113
06 - End Output	⇒ Page 01-115
07 - Code Control Module	⇒ Page 01-105
08 - Read Measuring Value Block	⇒ Page 01-250
10 - Adaptation	⇒ Page 01-285

Note:

- ◆ *A list of possible functions is printed out after pressing the HELP button.*
- ◆ *Do not select further functions, which can be printed out after pressing the HELP button.*
- ◆ *After the function is completed the V.A.G 1551 returns to the following start position:*

Rapid data transfer

HELP



Indicated on display:

Select function XX

01-102



Breakdown of the display:

- ◆ Upper line
- ◆ Part No. of control module system designation (03 ²⁾ Conf. cent. CU 0001)
- ◆ Lower line
- ◆ Code number dealer code number ¹⁾

1) Automatically stored in the control module when checking the system.

2) A number or number/letter combination (03 or 6Q, or others) indicate a correct programming of the control module.

- Press → button.

Please wait



Will appear briefly in display:

and then the following appears in the display:

1J0959801A 03 Door CU DS0022 →



The control module identification of the driver's door control module will be shown on the V.A.G 1551 scan tool display, e.g.:

- Press → button.

Please wait



Will appear briefly in display:

and then the following appears in the display:

1J0959802B 03 Door CU PS0022 →



The control module identification of the passenger's door control module will be shown on the V.A.G 1551 scan tool display, e.g.:

01-103



- Press → button.
- Please wait ⏪ Will appear briefly in display:
- and then the following appears in the display:
- 1J0959811A 03 Door CU RL0022 → ⏪ The control module identification of the rear left door control module will be shown on the V.A.G 1551 scan tool display, e.g.:
- Press → button.
- Please wait ⏪ Will appear briefly in display:
- and then the following appears in the display:
- 1J0959812A 03 Door CU RR0022 → ⏪ The control module identification of the rear right door control module will be shown on the V.A.G 1551 scan tool display, e.g.:
- Press → button.
- Rapid data transfer HELP ⏪ Indicated on display:
Select function XX

01-104

**Note:**

Rapid data transfer control module does not answer!	HELP	◀	◆ <i>If one of the malfunction messages opposite appears in the display, the possible causes of the malfunction can be printed out with the HELP button.</i>
Rapid data transfer K wire not switching to B+!	HELP	◀	◆ <i>Ignition must be switched on.</i>
Rapid data transfer No signal from control module!	→	◀	◆ <i>Malfunctions have occurred at the start of or during the program (external interference?).</i>
Rapid data transfer Fault in communication build up	→	◀	◆ <i>Check diagnosis wires as well as voltage supply and Ground connection.</i> - Press buttons -0- and -6- to end the output.
Rapid data transfer 06 End output	Q	◀	Indicated on display: - Confirm entry with the -Q- button.
Rapid data transfer Enter address word XX	HELP	◀	Indicated on display: - Switch off ignition. - Disconnect connector to V.A.G 1551 scan tool.



Convenience System Control Module, coding

Note:

- ◆ *When supplied the control module is precoded according to the vehicle equipment.*
- ◆ *The coding is performed with the V.A.G 1551 scan tool ⇒ ⇒ [Page 01-106](#) or ⇒ [Page 01-107](#).*
- Connecting scan tool ⇒ ⇒ [Page 01-3](#), initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-96](#).

Rapid data transfer
Select function XX

HELP



Indicated on display:

- Press buttons -0- and -7- (with 07 the function "Code control module" is selected).

Rapid data transfer
07 Code control module

Q



Indicated on display:

- Confirm entry with the -Q- button.

Code control module
Enter code number XXXXX (0-32000)

Q



Indicated on display:

- Enter code number according to table:

01-106

**Coding table, vehicles with convenience system ➤ 05.01**

Address word	Code number	
	2 doors	4 doors
46 Comfort Convenience		
Electric windows, one door	00256	04096
46 Comfort Convenience		
Electric windows, all doors	00257	04097
46 Comfort Convenience		
Electric windows with seat memory, one door	00258	04098
46 Comfort Convenience		
Electric windows with seat memory, all doors	00259	04099

01-107



Coding table, vehicles with convenience system 06.01 ➤

Address word	Code number	
	2 doors	4 doors
46 Comfort Convenience		
Electric windows, one door	00064	00258
46 Comfort Convenience		
Electric windows, all doors	00065	00259
46 Comfort Convenience		
Electric windows with seat memory, one door	N/A	00258
46 Comfort Convenience		
Electric windows with seat memory, all doors	N/A	00259

01-108



1J0959799J 03 Conv. cent. CU 0001 →
Coding XXXXX WSC XXXXX



- Confirm entry with the -Q- button.

The control module identification number will be displayed with the appropriate index letter, the code number and the workshop code.

If the contents of the display are as shown then the coding is successful.

If the code number entered is not accepted by the control module, the previous coding will appear in the display:

1J0959799J 03 Conv. cent. CU 0001 →
Coding XXXXX WSC XXXXX



Indicated on display:

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

- Repeat coding.

If the control module cannot be coded (correct control module, correct code number), the control module is malfunctioning.

Furthermore, at this point the door control module is called-up and checked.

01-109



End output:

- Press → button.

Rapid data transfer
Select function XX

HELP



Indicated on display:

- Press buttons -0- and -6- to end the output.

Rapid data transfer
06 End output

Q



Indicated on display:

- Confirm entry with the -Q- button.

Rapid data transfer
Enter address word XX

HELP



Indicated on display:

- Switch off ignition.
- Disconnect connector to V.A.G 1551 scan tool.



Check DTC Memory

Note:

The vehicle V.A.G 1552 System tester can be used instead of the V.A.G 1551 scan tool, however a print-out is not possible.

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-96](#) .
- Switch on printer with Print button (warning lamp in button lights up).

Rapid data transfer
Select function XX

HELP



Indicated on display:

- Press buttons -0- and -2- (the function "Check DTC memory" is entered with 02).

Rapid data transfer
02 - Check DTC memory

Q



Indicated on display:

- Press "Print" button
- Confirm entry with the -Q- button.

X DTCs recognized!



The number of stored DTC's appears in the display.

The stored DTC's are displayed and printed out one after the other.

**Note:**

If a DTC is recognized:

- ◆ 1. Repair malfunction
- ◆ 2. Erase DTC memory (function 05).
- ◆ 3. Check DTC memory again (function 02).

- The DTCs printed out can be repaired with aid of DTC table ⇒ ⇒ [Page 01-201](#) .
- The function "Read Measuring Value Block" ⇒ ⇒ [Page 01-250](#) and Display group overview ⇒ [Page 01-252](#) are additional aids.

The measured value block is divided into 15 display group numbers. The assignment of the individual display zones can be taken from the display group overview ⇒ ⇒ [Page 01-252](#) .

No DTC recognized!



If "No DTC recognized" is displayed the program will return to the initial position after pressing the → button.

Rapid data transfer

HELP



Indicated on display:

Select function XX

If something else is displayed:

Scan tool operating instructions

01-112



- Press buttons -0- and -6- to end the output.

Rapid data transfer

Q



Indicated on display:

06 End output

- Confirm entry with the -Q- button.

Rapid data transfer

HELP



Indicated on display:

Enter address word XX

- Switch off ignition.
- Disconnect connector to V.A.G 1551 scan tool.



Erase DTC memory

Note:

The vehicle V.A.G 1552 System tester can be used instead of the V.A.G 1551 scan tool, however a print-out is not possible.

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-96](#) .

Prerequisites:

- ◆ DTCs are corrected
- ◆ Functional check has been carried out
- ◆ DTC memory checked again

Rapid data transfer
Select function XX

HELP



Indicated on display:

- Press buttons -0- and -5- (the function "Erase DTC memory" is entered with 05).

Rapid data transfer
05 Erase DTC memory

Q



Indicated on display:

- Confirm entry with the -Q- button.

Rapid data transfer
DTC memory is erased!

→



Indicated on display:

- Press → button.

Rapid data transfer
Select function XX

HELP



Indicated on display:

01-114

**Note:****WARNING!**

DTC memory was not checked



- ◆ *If this appears in the display, the test sequence is faulty.*
- ◆ *Adhere strictly to test sequence; first of all check DTC memory, then erase memory.*
- Press buttons -0- and -6- to end the output.

Rapid data transfer

Q

06 End output



Indicated on display:

- Confirm entry with the -Q- button.

Rapid data transfer

HELP

Enter address word XX



Indicated on display:

- Switch off ignition.
- Disconnect connector to V.A.G 1551 scan tool.

01-115



End Output

- Press buttons -0- and -6- to end the output.

Rapid data transfer Q
06 End output



Indicated on display:

- Confirm entry with the -Q- button.

Rapid data transfer HELP
Enter address word XX



Indicated on display:

- Switch off ignition.
- Disconnect connector to V.A.G 1551 scan tool.



DTC tables, vehicles through 05.01

Note:

- ◆ *The DTC table is listed according to the 5 digit code on the left.*
- ◆ *Some of the mentioned DTC texts are only displayed on the VAS 5051. On the V.A.G 1551 , only the DTC will be printed in this case.*
- ◆ *The possible malfunctions are dependant on the respective vehicle equipment.*
- ◆ *Explanation of the malfunction types (e.g. "open circuit/short circuit to Ground"):*

Scan tool operating instructions

- ◆ *Before replacing components indicated as being malfunctioning, check the wiring and connectors to these components as well as the Ground connections using wiring diagram. This is particularly relevant if DTC's are output as "occurring sporadically" (SP).*
- ◆ *The DTC's displayed can be localized using the test table.*

Note:

- ◆ *This malfunction "no communication" can also appear with the door control modules. This has no influence on the function of the convenience system and is therefore of no consequence. Erase DTC memory.*

01333 049

Door CU -J388

no communication



Scan tool print-out: The number shown here in bold 049 (e.g.) has no relevance.

01-117



V.A.G 1551 display	Possible cause	Corrective action
00000 No DTC recognized	If "No DTC recognized" appears after carrying out repairs On Board Diagnostic (OBD) is ended	
00849 S-terminal on ignition/starter switch -D- Undefined switch condition	<ul style="list-style-type: none"> ◆ Terminal 15 OK. but S-terminal malfunctioning ◆ Faulty wiring or connectors 	- Read Measuring Value Block; Display group number 006 ⇒ ⇒ Page 01-262 , Display zone 3

01-118



V.A.G 1551 display	Possible cause	Corrective action
00893 Button for tailgate/trunk lid release - - E234- Implausible signal ¹⁾	◆ Faulty wiring or connectors	- Read Measuring Value Block; Display group number 014 ⇒ ⇒ Page 01-279 , display zone 2

¹⁾ DTC recorded if button pressed for longer than 5 minutes.

01-119



V.A.G 1551 display	Possible cause	Corrective action
<p>00912 Electric window switch FL - E40-</p> <p>Implausible signal</p> <p>Short to Ground</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Button installation not OK., sticks when operated ◆ Electric window switch, FL -E40- malfunctioning 	<p>- Read Measuring Value Block; Display group number 002 ⇒ ⇒ Page 01-254 , display zone 1</p> <p>- Check button</p>
<p>00913 Electric window switch FR, driver's door -E81-</p> <p>Implausible signal</p> <p>Short to Ground</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Button installation not OK., sticks when operated ◆ Electric window switch, FR -E81- malfunctioning 	<p>- Read Measuring Value Block; Display group number 002 ⇒ ⇒ Page 01-254 , display zone 2</p> <p>- Check button</p>

01-120



V.A.G 1551 display	Possible cause	Corrective action
<p>00914</p> <p>Electric window switch RL, driver's door -E53-</p> <p>Implausible signal</p> <p>Short to Ground</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Button installation not OK., sticks when operated ◆ Electric window switch, RL -E53- malfunctioning 	<p>- Read Measuring Value Block; Display group number 002 ⇒ ⇒ Page 01-254 , display zone 3</p> <p>- Check button</p>
<p>00915</p> <p>Electric window switch RR, driver's door -E55-</p> <p>Implausible signal</p> <p>Short to Ground</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Button installation not OK., sticks when operated ◆ Electric window switch, RR -E55- malfunctioning 	<p>- Read Measuring Value Block; Display group number 002 ⇒ ⇒ Page 01-254 , display zone 4</p> <p>- Check button</p>

01-121



V.A.G 1551 display	Possible cause	Corrective action
00928 Locking unit for driver's side CL -F220- Implausible signal Wrong equipment	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on driver's door ◆ Lock unit mechanics and operating components are stiff/partially seized ◆ Locking unit for driver's side central locking -F220- malfunctioning ◆ Wrong locking unit installed ¹⁾ 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to driver's door control module or to door main connector (lower left footwell) - Check lock unit mechanical components and operating components and make serviceable - Replace locking unit for driver's door central locking - F220- - Replace locking unit

¹⁾ If a rest of world lock is installed in a USA vehicle, there is a safe feedback via an additional switch (safe switch).

01-122



V.A.G 1551 display	Possible cause	Corrective action
00929 Locking unit for front passenger's side CL -F221- Implausible signal Wrong equipment	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on front passengers door ◆ Lock unit mechanics and operating components are stiff/partially seized ◆ Locking unit for front passenger's central locking -F221- malfunctioning ◆ Wrong locking unit installed ¹⁾ 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to front passenger's door control module or to door main connector (lower right footwell) - Check lock unit mechanical components and operating components and make serviceable - Replace locking unit for front passenger's door central locking -F221- - Replace locking unit

¹⁾ If a rest of world lock is installed in a USA vehicle, there is a safe feedback via an additional switch (safe switch).

01-123



V.A.G 1551 display	Possible cause	Corrective action
00930 Locking unit for rear left CL -F222- Implausible signal Wrong equipment	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on left rear door ◆ Lock unit mechanics and operating components are stiff/partially seized ◆ Locking unit for rear left central locking -F222- malfunctioning ◆ Wrong locking unit installed ¹⁾ 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to left rear door control module or to door main connector (in B pillar left) - Check lock unit mechanical components and operating components and make serviceable - Replace locking unit for rear left central locking -F222- - Replace locking unit

¹⁾ If a rest of world lock is installed in a USA vehicle, there is a safe feedback via an additional switch (safe switch).

01-124



V.A.G 1551 display	Possible cause	Corrective action
00931 Locking unit for rear right CL -F223- Implausible signal Wrong equipment	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on right rear door ◆ Lock unit mechanics and operating components are stiff/partially seized ◆ Locking unit for rear right central locking -F223- malfunctioning ◆ Wrong locking unit installed ¹⁾ 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to right rear door control module or to door main connector (in B pillar right) - Check lock unit mechanical components and operating components and make serviceable - Replace locking unit for rear right central locking -F223- - Replace locking unit

¹⁾ If a rest of world lock is installed in a USA vehicle, there is a safe feedback via an additional switch (safe switch).

01-125



V.A.G 1551 display	Possible cause	Corrective action
<p>00932</p> <p>Electric window motor, driver's side -V147-</p> <p>No or incorrect adjustment</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on driver's door ◆ Window lifter mechanical components are stiff/partially seized ¹⁾ ◆ Driver's side window motor -V147- malfunctioning ◆ No setting for automatic opening and closing 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to driver's door control module or to door main connector (footwell lower left) (LHD) - Check window lifter mechanical components and make serviceable ¹⁾ - Replace driver's side window motor -V147- - Perform setting for automatic opening and closing <p>⇒ Repair Manual, Body Exterior, Repair Group 64</p>

¹⁾ It is also possible that the door window runs tight in window guides

01-126



V.A.G 1551 display	Possible cause	Corrective action
<p>00933</p> <p>Electric window motor, front passenger's side -V148-</p> <p>No or incorrect adjustment</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on front passengers door ◆ Window lifter mechanical components are stiff/partially seized ¹⁾ ◆ Front passenger's window motor -V148- malfunctioning ◆ No setting for automatic opening and closing 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to front passenger's door control module or to door main connector (lower right footwell) - Check window lifter mechanical components and make serviceable ¹⁾ - Replace front passenger's window motor -V148- - Perform setting for automatic opening and closing <p>⇒ Repair Manual, Body Exterior, Repair Group 64</p>

¹⁾ It is also possible that the door window runs tight in window guides

01-127



V.A.G 1551 display	Possible cause	Corrective action
<p>00934 Electric window motor, rear left -V26-</p> <p>No or incorrect adjustment</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on left rear door ◆ Window lifter mechanical components are stiff/partially seized ¹⁾ ◆ Rear left window motor - V26- malfunctioning ◆ No setting for automatic opening and closing 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to left rear door control module or to door main connector (in left B pillar) (LHD) - Check window lifter mechanical components and make serviceable ¹⁾ - Replace rear left window motor -V26- - Perform setting for automatic opening and closing <p>⇒ Repair Manual, Body Exterior, Repair Group 64</p>

¹⁾ It is also possible that the door window runs tight in window guides

01-128



V.A.G 1551 display	Possible cause	Corrective action
<p>00935 Electric window motor, rear right -V27-</p> <p>No or incorrect adjustment</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on right rear door ◆ Window lifter mechanical components are stiff/partially seized ¹⁾ ◆ Rear right window motor -V27- malfunctioning ◆ No setting for automatic opening and closing 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to right rear door control module or to door main connector (in right B pillar) (LHD) - Check window lifter mechanical components and make serviceable ¹⁾ - Replace rear right window motor -V27- - Perform setting for automatic opening and closing <p>⇒ Repair Manual, Body Exterior, Repair Group 64</p>

¹⁾ It is also possible that the door window runs tight in window guides



V.A.G 1551 display	Possible cause	Corrective action
<p>00936 Window lifter switch, front passenger's side -E107- ¹⁾</p> <p style="text-align: right;">Implausible signal ¹⁾</p> <p style="text-align: right;">Short to B+</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Button installation not OK., sticks when operated ◆ Front passenger's window lifter switch - E107- malfunctioning 	<p>- Read Measuring Value Block; Display group number 005 ⇒ ⇒ Page 01-260 , display zone 1</p> <p>- Check button</p>

¹⁾ DTC recorded if button pressed in a direction for longer than 5 minutes, or both signals (open, close) occur simultaneously.



V.A.G 1551 display	Possible cause	Corrective action
<p>00937 Window lifter switch, rear left - E52- ¹⁾</p> <p>implausible signal</p> <p>Short to B+</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Button installation not OK., sticks when operated ◆ Window lifter switch, rear left -E52- malfunctioning 	<p>- Read Measuring Value Block; Display group number 008 ⇒ ⇒ Page 01-266 , display zone 1</p> <p>- Check button</p>

¹⁾ DTC recorded if button pressed in a direction for longer than 5 minutes, or both signals (open, close) occur simultaneously.

01-131



V.A.G 1551 display	Possible cause	Corrective action
00938 Window lifter switch, right rear -E54- ¹⁾ implausible signal Short to B+	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Button installation not OK., sticks when operated ◆ Window lifter switch rear right -E54- malfunctioning 	- Read Measuring Value Block; Display group number 007 ⇒ ⇒ Page 01-264 , display zone 1 - Check button

¹⁾ DTC recorded if button pressed in a direction for longer than 5 minutes, or both signals (open, close) occur simultaneously.

01-132



V.A.G 1551 display	Possible cause	Corrective action
00939 Mirror adjustment motor, driver's side - V149-	<ul style="list-style-type: none">◆ Faulty wiring or connectors◆ No voltage supply to driver's door◆ Driver's side mirror adjustment motor -V49- malfunctioning	<ul style="list-style-type: none">- Check wiring and connectors using wiring diagram- Check voltage supply to driver's door control module or to door main connector (lower left footwell) (LHD)- Replace mirror adjustment motor, driver's side -V149-

01-133



V.A.G 1551 display	Possible cause	Corrective action
00940 Mirror adjustment motor, front passenger's side - V150-	<ul style="list-style-type: none">◆ Faulty wiring or connectors◆ No voltage supply for central locking on front passenger's door◆ Front passenger's side mirror adjustment motor - V150- malfunctioning	<ul style="list-style-type: none">- Check wiring and connectors using wiring diagram- Check voltage supply to front passenger's door control module or to door main connector (lower right footwell)- Replace mirror adjustment motor, front passenger's side -V150-

01-134



V.A.G 1551 display	Possible cause	Corrective action
00941 Exterior mirror retraction motor, driver's side -V121-	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply to driver's door ◆ Exterior mirror retraction motor, driver's side -V121- malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to driver's door control module or to door main connector (lower left footwell) (LHD) - Replace exterior mirror retraction motor, driver's side -V121- - Check exterior mirror retraction function ¹⁾

¹⁾ To do this the vehicle must be driven at ≥ 15 km/h either on a rolling road or during a test drive. The mirrors must not be retracted again. Retracting mirrors must though return to their normal position.

01-135



V.A.G 1551 display	Possible cause	Corrective action
00942 Exterior mirror retraction motor, passenger's side -V122-	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply to passenger's door ◆ Exterior mirror retraction motor, passenger's side - V122- malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to passenger's door control module or to door main connector (lower right footwell) (LHD) - Replace exterior mirror retraction motor, passenger's side -V122- - Check exterior mirror retraction function ¹⁾

¹⁾ To do this the vehicle must be driven at ≥ 15 km/h (9 mph) either on a rolling road or during a test drive. The mirrors must not be retracted again. Retracting mirrors must though return to their normal position.

01-136



V.A.G 1551 display	Possible cause	Corrective action
00943 Heated exterior mirror, driver's side - Z4-		
00944 Heated exterior mirror, front passenger's side -Z5-	<ul style="list-style-type: none"> ◆ Mirror heater not installed ◆ Faulty wiring or connectors ◆ No voltage supply to driver's/front passenger's doors 	<ul style="list-style-type: none"> - Read Measuring Value Block; Display group number 010 ⇒ ⇒ Page 01-270 , display zone 2. Measured value block shows if rear window button is being read correctly - Check wiring and connectors using wiring diagram - Check voltage supply to door control modules or to door main connectors (lower left and right foot wells)

01-137



V.A.G 1551 display	Possible cause	Corrective action
00946 Interior light -W- Short to B+	<ul style="list-style-type: none">◆ Faulty wiring or connectors ◆ Interior light or one of the reading lights are malfunctioning	<ul style="list-style-type: none">- Check wiring and connectors using wiring diagram - Replace interior light or malfunctioning reading light

01-138



V.A.G 1551 display	Possible cause	Corrective action
00947 Tailgate/trunk lid remote control switch -E188- Short to Ground	<ul style="list-style-type: none">◆ Faulty wiring or connectors ◆ Tailgate/trunk lid remote control switch -E188- malfunctioning	<ul style="list-style-type: none">- Check wiring and connectors using wiring diagram - Replace tailgate/trunk lid remote control switch -E188-
00948 Signal, close sliding roof Short to B+	<ul style="list-style-type: none">◆ Faulty wiring or connectors	<ul style="list-style-type: none">- Check wiring and connectors using wiring diagram

01-139



V.A.G 1551 display	Possible cause	Corrective action
<p>00949 Motor for tailgate/trunk lid CL -V53- lock</p> <p style="text-align: right;">Undefined switch position</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Lock mechanical components are stiff/partially seized ◆ Tailgate/trunk lid lock/unlock motor malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check lock mechanical components and make serviceable - Replace tailgate/trunk lid lock/unlock motor
<p>00950 Motor for tailgate/trunk lid CL -V53- unlock</p> <p style="text-align: right;">Undefined switch position</p>		

01-140



V.A.G 1551 display	Possible cause	Corrective action
00951 Release for tailgate/trunk lid remote release -J398- (Only USA) Short to B+	◆ Faulty wiring or connectors	- Check wiring and connectors using wiring diagram
00952 Signal driver's door open Short to B+	◆ Faulty wiring or connectors	- Check wiring and connectors using wiring diagram

01-141



V.A.G 1551 display	Possible cause	Corrective action
00953 Time limit interior light Undefined switch position	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Interior light, reading lights and luggage compartment connections malfunctioning ◆ Interior light malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check wiring and connectors using wiring diagram - Replace interior light
00954 Starter inhibitor relay -J433-1),2) Short to B+	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Starter inhibitor relay -J433- malfunctioning (USA) 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Replace starter inhibitor relay -J433-(USA)

1) Not displayed on scan tool display at present

2) Only vehicles for USA or vehicles without immobilizer

01-142



V.A.G 1551 display	Possible cause	Corrective action
00955 Key 1 Adaptation limit exceeded	<ul style="list-style-type: none"> ◆ Key not matched ◆ Key operated more than 200 times beyond range of system 	- Read Measuring Value Block; display group number 013 ⇒ ⇒ Page 01-277 , display zone 1 to 4
00956 Key 2 Adaptation limit exceeded		
00957 Key 3 Adaptation limit exceeded		
00958 Key 4 Adaptation limit exceeded		



V.A.G 1551 display	Possible cause	Corrective action
01030 Key button CL driver's side, locking Implausible signal Short to Ground ¹⁾	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Lock cylinder sticks ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Read Measuring Value Block; Display group number 003 ⇒ ⇒ Page 01-256 , display zone 1 - Check lock cylinder installation
01031 Key button CL driver's side, unlocking Implausible signal Short to Ground ¹⁾	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Lock cylinder sticks ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Read Measuring Value Block; Display group number 003 ⇒ ⇒ Page 01-256 , display zone 1 - Check lock cylinder installation

¹⁾ DTC recorded if operated for longer than 5 minutes

01-144



V.A.G 1551 display	Possible cause	Corrective action
<p>01032 Key button CL front passenger's side, locking</p> <p>Implausible signal</p> <p>Short to Ground ¹⁾</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Lock cylinder sticks ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Read Measuring Value Block; Display group number 006 ⇒ ⇒ Page 01-262 , display zone 1 - Check lock cylinder installation
<p>01033 Key button CL front passenger's side, unlocking</p> <p>Implausible signal</p> <p>Short to Ground ¹⁾</p>		<ul style="list-style-type: none"> - Read Measuring Value Block; Display group number 006 ⇒ ⇒ Page 01-262 , display zone 1

¹⁾ DTC recorded if operated for longer than 5 minutes

01-145



V.A.G 1551 display	Possible cause	Corrective action
01034 Electric window thermo protection active, driver	<ul style="list-style-type: none">◆ Faulty wiring or connectors◆ Electric window sticking or binding◆ Electric window motor binding	- Read Measuring Value Block; Display group number 003 ⇒ ⇒ Page 01-256 , display zone 2
01035 Electric window thermo protection active, passenger		- Read Measuring Value Block; Display group number 006 ⇒ ⇒ Page 01-262 , display zone 2

01-146



V.A.G 1551 display	Possible cause	Corrective action
01036 Electric window thermo protection active, RL	<ul style="list-style-type: none">◆ Faulty wiring or connectors◆ Electric window sticking or binding◆ Electric window motor binding	- Read Measuring Value Block; Display group number 008 ⇒ ⇒ Page 01-266 , display zone 2
01037 Electric window thermo protection active, RR		- Read Measuring Value Block; Display group number 007 ⇒ ⇒ Page 01-264 , display zone 2

01-147



V.A.G 1551 display	Possible cause	Corrective action
01038 Central locking thermo protection	<ul style="list-style-type: none">◆ Faulty wiring or connectors◆ Door lock stiff	<ul style="list-style-type: none">- Read Measuring Value Block; Display group number 014 ⇒ ⇒ Page 01-279 , display zone 4
01044 Control module incorrectly coded	<ul style="list-style-type: none">◆ Control module installed does not correspond to the vehicle equipment◆ Control module supplied is not programmed or not fully programmed	<ul style="list-style-type: none">- Replace control module- Inform part supplier of the problem

01-148



V.A.G 1551 display	Possible cause	Corrective action
01131 Turn signal activation Undefined switch position	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Fuse S144 faulty 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Perform Output Diagnostic Test Mode (DTM) ⇒ ⇒ Page 01-247 - Check fuses using wiring diagram or replace
01134 Alarm horn -H12- Undefined switch position	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Fuse S111 faulty ◆ Alarm horn -H12 malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Perform Output Diagnostic Test Mode (DTM) ⇒ ⇒ Page 01-247 - Check fuses using wiring diagram or replace - Replace alarm horn -H12-

01-150



V.A.G 1551 display	Possible cause	Corrective action
01179 Incorrect key programming	◆ Matching of keys (function 10) not performed correctly	- See description for matching keys with remote control, ⇒ Page 01-285 - Read Measuring Value Block; Display group number 013 ⇒ ⇒ Page 01-277 , display zones 1 to 4 ¹⁾

¹⁾ Number of keys matched ("learned") will be displayed.

01-152



V.A.G 1551 display	Possible cause	Corrective action
<p>01329</p> <p>Convenience system data BUS in emergency mode</p>	<p>◆ Faulty wiring or connectors</p>	<p>- Check wiring and connectors using wiring diagram</p> <p>Wiring OK., then:</p> <p>- Disconnect all door main connectors and reconnect one after the other while observing measured value block</p> <p>- Replace the control module that has blocked the bus</p> <p>Note: New DTC's are stored, these must be erased</p> <p>- Read Measuring Value Block; Display group number 012 ⇒ ⇒ Page 01-274 , display zone 1</p>

01-153



V.A.G 1551 display	Possible cause	Corrective action
<p>01330</p> <p>Central control module for convenience system -J393-</p> <p style="text-align: right;">Malfunctioning</p> <p style="text-align: right;">Voltage supply too high</p> <p style="text-align: right;">Voltage supply too low</p>	<ul style="list-style-type: none"> ◆ Central control module for convenience system malfunctioning ◆ Battery -A- malfunctioning or discharged ◆ Voltage regulator -C1- malfunctioning ◆ Alternator -C- malfunctioning ◆ Battery -A- malfunctioning or discharged 	<p>- Replace convenience system central control module</p> <p>- Check wiring and connectors using wiring diagram</p> <p>- Read Measuring Value Block; Display group number 014 ⇒ ⇒ Page 01-279 , display zone 1</p>

01-154



V.A.G 1551 display	Possible cause	Corrective action
<p>01331</p> <p>Door control module driver's side -J386-</p> <p>Malfunctioning</p> <p>No communication</p> <p>Voltage supply too high</p> <p>Voltage supply too low</p>	<ul style="list-style-type: none"> ◆ Door control module, driver's side -J386 malfunctioning ◆ Faulty wiring or connectors ◆ Battery -A- malfunctioning or discharged ◆ Voltage regulator - C1- malfunctioning ◆ Alternator -C- malfunctioning ◆ Battery -A- malfunctioning or discharged 	<ul style="list-style-type: none"> - Replace door control module, driver's side -J386 - Check wiring and connectors using wiring diagram - The system, even with the DTC entry, is OK. - Erase DTC memory - Perform functional check - Using Read Measuring Value Block; display group number 012 ⇒ ⇒ Page 01-274 , display zone 2, a check can be made to see if the door control module is installed or not. - Check wiring and connectors using wiring diagram - Read Measuring Value Block; Display group number 014 ⇒ ⇒ Page 01-279 , display zone 1

01-155



V.A.G 1551 display	Possible cause	Corrective action
<p>01332 Door control module, front passenger's side -J387-</p> <p>Malfunctioning</p> <p>No communication</p> <p>Voltage supply too high</p> <p>Voltage supply too low</p>	<ul style="list-style-type: none"> ◆ Door control module, passenger's side - J387- malfunctioning ◆ Faulty wiring or connectors ◆ Battery -A- malfunctioning or discharged ◆ Voltage regulator - C1- malfunctioning ◆ Alternator -C- malfunctioning 	<ul style="list-style-type: none"> - Replace door control module, passenger's side -J387- - Check wiring and connectors using wiring diagram - The system, even with the DTC entry, is OK. - Erase DTC memory - Perform functional check - Using Read Measuring Value Block; display group number 012 ⇒ ⇒ Page 01-274 , display zone 2, a check can be made to see if the door control module is installed or not. - Check wiring and connectors using wiring diagram - Read Measuring Value Block; Display group number 014 ⇒ ⇒ Page 01-279 , display zone 1

01-156



V.A.G 1551 display	Possible cause	Corrective action
<p>01333</p> <p>Door control module, rear left - J388-</p> <p>Malfunctioning</p> <p>No communication</p> <p>Voltage supply too high</p> <p>Voltage supply too low</p>	<ul style="list-style-type: none"> ◆ Door control module, rear left - J388- malfunctioning ◆ Faulty wiring or connectors ◆ Battery -A- malfunctioning or discharged ◆ Voltage regulator - C1- malfunctioning ◆ Alternator -C- malfunctioning 	<ul style="list-style-type: none"> - Replace door control module, rear left -J388- - Check wiring and connectors using wiring diagram - The system, even with the DTC entry, is OK. - Erase DTC memory - Perform functional check - Using Read Measuring Value Block; display group number 012 ⇒ ⇒ Page 01-274 , display zone 3, a check can be made to see if the door control module is installed or not. - Check wiring and connectors using wiring diagram - Read Measuring Value Block; Display group number 014 ⇒ ⇒ Page 01-279 , display zone 1

01-157



V.A.G 1551 display	Possible cause	Corrective action
<p>01334</p> <p>Door control module, rear right -J389-</p> <p>Malfunctioning</p> <p>No communication</p> <p>Voltage supply too high</p> <p>Voltage supply too low</p>	<ul style="list-style-type: none"> ◆ Door control module, rear right - J389- malfunctioning ◆ Faulty wiring or connectors ◆ Battery -A- malfunctioning or discharged ◆ Voltage regulator - C1- malfunctioning ◆ Alternator -C- malfunctioning 	<ul style="list-style-type: none"> - Replace door control module, rear right -J389- - Check wiring and connectors using wiring diagram - The system, even with the DTC entry, is OK. - Erase DTC memory - Perform functional check - Using Read Measuring Value Block; display group number 012 ⇒ ⇒ Page 01-274 , display zone 3, a check can be made to see if the door control module is installed or not. - Read Measuring Value Block; Display group number 014 ⇒ ⇒ Page 01-279 , display zone 1



V.A.G 1551 display	Possible cause	Corrective action
<p>01335 Driver's seat/mirror position control module ¹⁾</p> <p style="text-align: center;">Implausible signal</p> <p style="text-align: center;">No communication</p>	<p>◆ Faulty wiring or connectors</p> <p>◆ Seat memory control module diagnosis (no communication with door control module) ¹⁾</p>	<p>- Check wiring and connectors using wiring diagram</p> <p>- Read Measuring Value Block; Display group number 012 ⇒ ⇒ Page 01-274 , display zone 4</p> <p>- The seat memory is equipped with its own K wire, this can be read via address word "36"</p>

¹⁾ Function: The control module stores the seat and mirror positions and can reset to these positions

01-159



V.A.G 1551 display	Possible cause	Corrective action
01358 Interior locking switch, driver's side -E150- Implausible signal Short to Ground	◆ Faulty wiring or connectors ◆ Faulty wiring or connectors	- Check wiring and connectors using wiring diagram - Read Measuring Value Block; Display group number 001 ⇒ ⇒ Page 01-252 , display zone 2
01359 Interior locking switch, front passenger's side -E198- Implausible signal Short to Ground	◆ Faulty wiring or connectors ◆ Faulty wiring or connectors	- Check wiring and connectors using wiring diagram - Read Measuring Value Block; Display group number 001 ⇒ ⇒ Page 01-252 , display zone 2



V.A.G 1551 display	Possible cause	Corrective action
<p>01362 Close switch for tailgate/trunk lid -F124 -²⁾</p> <p>Short to Ground ¹⁾</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Lock operating mechanism or lock cylinder mechanical components binding 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check lock operating components and make serviceable - Replace lock cylinder - Read Measuring Value Block; Display group number 010 ⇒ ⇒ Page 01-270 , display zone 3
<p>01389 Open switch for tailgate/trunk lid -F124- ²⁾</p> <p>Implausible signal</p> <p>Short to Ground ¹⁾</p>		

¹⁾ DTC recorded if operated for longer than 5 minutes

²⁾ Unclip contact switch on lock cylinder housing (with small lever)

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V.A.G 1551 display	Possible cause	Corrective action
01483 Activation of rear lid remote unlocking Undefined switch position	♦ Faulty wiring or connectors	- Check wiring and connectors using wiring diagram
01484 Central locking key button, lock Short to Ground 1)	♦ Faulty wiring or connectors	- Check wiring and connectors using wiring diagram
01485 Central locking key button, unlock Short to Ground 1)	♦ Faulty wiring or connectors	- Check wiring and connectors using wiring diagram

1) DTC recorded if operated for longer than 10 seconds



Output Diagnostic Test Mode (DTM), vehicles through 05.01

The components displayed in the Output Diagnostic Test Mode (DTM) can differ depending upon the equipment fitted to the vehicle. For example on vehicles without ATA there will be no step "1" as listed in the table below.

The Output Diagnostic Test Mode (DTM) activates the following components in the stated sequence:

Step	Display in tester	Reaction
	Alarm horn (for anti-theft alarm)	- Horn sounds continuously
	Turn signal lights activation (for anti-theft alarm)	- Activated continuously (lights up cont.)
	Interior light, reading lights	- Interior and reading lights are activated
	Signal close sliding roof	- Sliding roof closes ¹⁾
	"Safe" LED driver's door	- "Safe" LED lights up
	Instrument illumination	- Switch illumination in control module active
	END	- Information: End of regular final control test

¹⁾ When performing Output Diagnostic Test Mode (DTM) "Signal close sliding roof", the ignition and S-terminal must be inactive (no key in ignition/starter switch) and one of the front doors must be open.



Special tools, testers and auxiliary items

- ◆ V.A.G 1551 scan tool or vehicle V.A.G 1552 System tester with cable V.A.G 1551/3
- ◆ V.A.G 1594 Adapter set
- ◆ V.A.G 1527 LED test light
- ◆ Wiring diagram

Work sequence

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-96](#) .

Rapid data transfer
Select function XX

HELP



Indicated on display:

- Operate scan tool taking into account the information on the display:
- Input 03 for "Output Diagnostic Test Mode (DTM)" function.
- Switch off ignition and remove ignition key from ignition lock.



Rapid data transfer Q

03 Output Diagnostic Test Mode (DTM)



Indicated on display:

- Confirm entry with the -Q- button.

Final Control Diagnosis →



Indicated on display:

Perform Output Diagnostic Test Mode (DTM) by pressing button for individual tests: See table on ⇒ ⇒ [Page 01-247](#) .

Output Diagnostic Test Mode (DTM) can be terminated by pressing the -C- button.

- Press → button.

If a component does not function:

- Continue Output Diagnostic Test Mode (DTM) to the end.



Read measuring value block, vehicles through 05.01

Special tools, testers and auxiliary items

- ◆ V.A.G 1551 Scan tool with V.A.G 1551/3 cable

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-96](#) .

The measured values in the functions Read Measuring Value Block and basic setting are described during the individual component test. This table serves only as an overview.

The measured value block is divided into 16 display group numbers. The assignment of the individual display zones can be taken from the display group overview ⇒ ⇒ [Page 01-252](#) .

<p>Rapid data transfer Select function XX</p>	<p>HELP</p>	<p>⚡</p>	<p>Indicated on display:</p> <ul style="list-style-type: none"> - Press buttons -0- and -8- (08 initiates the "Read Measuring Value Block" function).
<p>Rapid data transfer 08 Read Measuring Value Block</p>	<p>Q</p>	<p>⚡</p>	<p>Indicated on display:</p> <ul style="list-style-type: none"> - Confirm entry with the -Q- button.
<p>Read Measuring Value Block Input display group number XX</p>	<p>HELP</p>	<p>⚡</p>	<p>Indicated on display:</p>

Note:

The display group number 001 is an example, to illustrate the sequence.

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- Press buttons -0-, -0- and -1- for "Display group number 1" and confirm entry with -Q- button.

Read Measuring Value Block 1 →

1 2 3 4



Indicated on display: (1 to 4 = Display zones)

Note:

To change to another display group proceed as follows:

Display group	V.A.G 1551	V.A.G 1552
Higher	Press button - 3-	Press ↑ button
Lower	Press button - 1-	Press ↓ button
Skip	Press button - C-	Press button - C-

- Displayed after pressing -C- button.

Read Measuring Value Block HELP

Input display group number XXX



Indicated on display:

- Now enter the display group number required.



Display group overview, vehicles through 05.01

Break down of display content for display group number 001

Display group 001 -Driver's door-						
Read Measuring Value Block 1				◀ Indicated on display		
xxx	xxx	xxx		◀ Display zone	Specification	Evaluation
1	2	3	4	Empty ¹⁾		
				Electric window - Hall signal, driver's side	turns, still	⇒ ⇒ Page 01-253
				Driver's interior locking switch	lock unlock not operated, implausible	
				Child safety switch	off, on, not installed	

¹⁾ Empty means in this case: Display zone is blank

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Evaluating display group number 001

Display zone	Designation	Display	Corrective action
1	Child safety switch	off on not installed	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display. If the display does not change after checking connections, repair malfunction or replace relevant component. - Erase DTC memory - Perform functional check - Check DTC memory again
2	Driver's interior locking switch	lock unlock not operated implausible	
3	Window lifter - Hall signal, driver's side	turns still	- Functions only when ignition is "on"



Break down of display content for display group number 002

Read Measuring Value Block 2				Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	Display zones	Specification	⇒ ⇒ Page 01-255
			Driver's switch for rear right electric window ^{1),2)}	autom. open, autom. close, man. open, man. close not operated, implausible		
			Driver's switch for rear left electric window ^{1),2)}	autom. open, autom. close, man. open, man. close not operated, implausible		
			Driver's switch for front passenger's side electric window ^{1),2)}	autom. open, autom. close, man. open, man. close not operated, implausible		
Driver's side electric window switch ^{1),2)}					autom. open, autom. close, man. open, man. close not operated, implausible	

1) Part of door control module

2) Rear left and rear right for 2 door and Midi (4 door with electric front windows): not installed

01-170



Evaluating display group number 002

Display zone	Description	Display	Corrective action
1	Driver's side electric window switch ¹⁾	autom. open, autom. close man. open, man. close not operated, implausible	- Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Perform functional check - Check DTC memory again
2	Driver's switch for front passenger's side electric window ¹⁾	autom. open, autom. close, man. open, man. close, not operated, implausible	
			Continued on next page

¹⁾ Part of door operating unit

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Display zone	Description	Display	Corrective action
3	Driver's switch for rear left electric window ^{1),2)}	autom. open, autom. close, man. open, man. close, not operated implausible not installed ²⁾	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Perform functional check - Check DTC memory again
4	Driver's switch for rear right electric window ^{1),2)}	autom. open, autom. close man. open, man. close not operated, implausible not installed ²⁾	

¹⁾ Part of door operating unit

²⁾ Rear left and rear right for 2 door and Midi (4 door with electric front windows): not installed



Break down of display content for display group number 003

Display group 003 -Driver's door-						
Read Measuring Value Block 3				Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	Display zones	Specification	Evaluation
				Central locking feedback, driver's side	Safe not Safe	⇒ ⇒ Page 01-257
				Central locking feedback, driver's side	locked, unlocked	
				Driver's side electric window thermal protection ²⁾	active: 0 inactive: 1	
				Rotary latch switch ¹⁾	dr. open: 1, dr. closed: 0	
				Driver's central locking Key switch	Open, close, not operated, implausible	

¹⁾ There is a contact switch in door lock

²⁾ Software thermo protection (overload protection for electric window motor). The electric window will be switched off for approx. 10 to 20 seconds

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Evaluating display group number 003

Display zone	Description	Display	Corrective action
1	Key switch driver's side	Open closed not operated implausible	<ul style="list-style-type: none"> - Visual check of wiring - Check lock mechanism - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Rotary latch switch / driver's side elec. w. thermo protection	Door open: 1 Door closed: 0 EW 0: Switched off	
3	Central locking feedback "locked", driver's side	locked unlocked	
4	Central locking feedback "safe", driver's side	safe not safe	

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Break down of display content for display group number 004

Display group 004 -Driver's door-						
Read Measuring Value Block 4				◀ Indicated on display		
xxx	xxx	xxx				
1	2	3	4	◀ Display zones	Specification	Evaluation
				Empty ¹⁾		
				Mirror release switch, driver's side	released, engaged, not installed	⇒ ⇒ Page 01-259
				Mirror selection switch, driver's side	left, right, fold, not operated	
				Mirror adjustment switch, driver's side	Pos X+, Pos X - Pos Y+, Pos Y - not operated	

¹⁾ Empty means in this case: Display zone is blank

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Evaluating display group number 004

Display zone	Description	Display	Corrective action
1	Driver's mirror adjustment switch FS	Pos X+ Pos X- Pos Y+ Pos Y- not operated	- Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Driver's mirror selection switch	left right move mirror, not operated	
3	Driver's mirror release switch	mid. pos. end pos. not installed	



Break down of display content for display group number 005

Display group 005 -Front passenger's door-						
Read Measuring Value Block 5			→ Indicated on display			
xxx	xxx	xxx	◀ Display zones		Specification	Evaluation
1	2	3	4	Empty ¹⁾		
				Mirror release switch, passenger side	released, engaged, not installed	⇒ ⇒ Page 01-261
				Interior locking switch, front pass. - E198- (USA only)	lock, unlock, not operated, implausible	
				Electric window switch, front passenger's side	autom. open, automatic close, man. open, man. close, not operated, implausible	

¹⁾ Empty means in this case: Display zone is blank

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Evaluating display group number 005

Display zone	Description	Display	Corrective action
1	Electric window switch, front passenger's side	autom. open, autom. close, man. open, man. close not operated implausible	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Interior locking switch, front passenger's side -E198 ²⁾	locked unlocked not operated implausible ¹⁾	
3	Mirror release switch, front passenger's side	mid. pos. end pos. not installed	

1) Implausible means: both directions simultaneously!

2) Lock/unlock switch, front passenger's side



Break down of display content for display group number 006

Display group 006 -Front passenger's door-						
Read Measuring Value Block 6 xxx xxx xxx xxx				◀ Indicated on display		
1	2	3	4	Display zones	Specification	Evaluation
				Central locking feedback, front passenger's side	Safe not Safe	⇒ ⇒ Page 01-263
				Central locking feedback, front passenger's side	locked, unlocked	
				Driver's side electric window thermal protection ²⁾	active: 0 inactive: 1	
				Rotary latch switch ¹⁾	dr. open: 1, dr. closed: 0	
				Key switch, front passenger's side	open, closed, not operated, implausible	

¹⁾ There is a contact switch in door lock

²⁾ Software thermo protection (overload protection for electric window motor). The electric window will be switched off for approx. 10 to 20 seconds

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Evaluating display group number 006

Display zone	Description	Display	Corrective action
1	Key switch, front passenger's side	open closed not operated implausible	- Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Rotary latch switch ¹⁾ Electric window thermo protection ²⁾ front passenger's side	dr. open: 1 dr. closed: 0 active: 0 inactive: 1	
3	Central locking feedback, front passenger's side	locked unlocked	
4	Central locking feedback, front passenger's side	safe not safe	

¹⁾ There is a contact switch in door lock

²⁾ Software thermo protection (overload protection for electric window motor). The electric window will be switched off for approx. 10 to 20 seconds



Break down of display content for display group number 007

Display group 007 -Rear right door-						
Read Measuring Value Block 7				→ ◀ Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	◀ Display zones	Specification	Evaluation
				Central locking feedback, rear right	safe, not safe	⇒ ⇒ Page 01-265
				Central locking feedback, rear right	locked, unlocked	
				Electric window thermo protection, rear right	active: 0 inactive: 1	
				Rotary latch switch	dr. open: 1 dr. closed: 0	
				Electric window switch, rear right	autom. open, autom. close, man. open, man. close, not operated, implausible	

2) Rear left and rear right for 2 door and Midi (4 door with electric front windows): not installed

01-181



Evaluating display group number 007

Display zone	Description	Display	Corrective action
1	Electric window switch, rear right ²⁾	autom. open, autom. close, man. open, man. close not operated implausible	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Rotary latch switch Electric window thermo protection, rear right	dr. open dr. closed active: 0 inactive: 1	
3	Central locking feedback, rear right	locked unlocked	
4	Central locking feedback, rear right	safe not safe	

²⁾ Rear left and rear right for 2 door and Midi (4 door with electric front windows): not installed



Break down of display content for display group number 008

Display group 008 -Rear left door-						
Read Measuring Value Block 8				Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	Display zones	Specification	Evaluation
				Central locking feedback, rear left	safe, not safe	⇒ ⇒ Page 01-267
				Central locking feedback, rear left	locked, unlocked	
				Electric window thermo protection, rear left ²⁾	active: 0 inactive: 1	
				Rotary latch switch	dr. open: 1 dr. closed: 0	
				Electric window switch, rear left ²⁾	autom. open, autom. close, man. open, man. close, not operated, implausible	

²⁾ Rear left and rear right for 2 door and Midi (4 door with electric front windows): not installed

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Evaluating display group number 008

Display zone	Description	Display	Corrective action
1	Electric window switch, rear left ²⁾	autom. open, autom. close, man. open, man. close, not operated implausible	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Rotary latch switch Electric window thermo protection, rear left	dr. open dr. closed active: 0 inactive: 1	
3	Central locking feedback, rear left	locked unlocked	
4	Central locking feedback, rear left	safe not safe	

²⁾ Rear left and rear right for 2 door and Midi (4 door with electric front windows): not installed



Break down of display content for display group number 009

Display group 009 -Central control module-						
Read Measuring Value Block 9				→ Indicated on display		
xxx	xxx	xxx	xxx	← Display zones		
1	2	3	4	Specification	Evaluation	
			Interior monitor sensor	yes no not installed	⇒ ⇒ Page 01-269	
			Remote control module key button	open, closed, RLR ¹⁾ , Panic ²⁾ (with 0 or 1)		
			Speed signal (Steps: 2 km/h)	mv 0 km/h (steps: 2 km/h)		
			Instrument illumination (in 16 steps, 0 to 100%)	mv (in 16 steps)		

1) Only vehicles for USA, RLR= Rear lid remote release

2) Only vehicles for USA, alarm system and turn signal lights are activated



Evaluating display group number 009

Display zone	Description	Display	Corrective action
1	Instrument illumination	mv = 0 to 100% (in 16 steps)	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Speed signal	mv = km/h (steps: 2km/h)	
3	Remote control key button	unlock, lock, RLR ¹⁾ , Panic ²⁾ (with 0 or 1)	
4	Interior monitor sensor	yes no not installed	

1) Only vehicles for USA, RLR= Rear lid remote release

2) Only vehicles for USA, alarm system and turn signal lights are activated



Break down of display content for display group number 010

Display group 010 -Central control module-						
Read Measuring Value Block 10				→ Indicated on display		
xxx	xxx	xxx	xxx	← Display zones		Evaluation
1	2	3	4			
			Ignition	Terminal 15 on, Terminal 15 off	⇒ ⇒ Page 01-271	
			Trunk lid/tailgate Key switch ²⁾	open, closed, not oper. implausibl		
			Mirror heating	on, off not installed		
			S-terminal	operated not operated		

²⁾ Unclip contact switch on lock cylinder housing (with small lever)

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Evaluating display group number 010

Display zone	Description	Display	Corrective action
1	S-terminal	operated not operated	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Mirror heating	on, off not installed	
3	Trunk lid/tailgate Key switch ²⁾	open closed not oper. implausible	
4	Ignition	Terminal 15 on Terminal 15 off	

²⁾ Unclip contact switch on lock cylinder housing (with small lever)



Break down of display content for display group number 011

Display group 011 -Central control module-						
Read Measuring Value Block 11				→	◀ Indicated on display	
xxx	xxx	xxx	xxx			
1	2	3	4	◀ Display zones	Specification	Evaluation
				Empty ¹⁾		⇒ ⇒ Page 01-273
				Sliding/tilting sunroof released ²⁾	yes, no	
				Trunk lid/tailgate contact switch ³⁾	open, closed	
				Hood contact switch	operated, not operated, not installed	

¹⁾ Empty means in this case: Display zone is blank

²⁾ The central control modules sends a delayed terminal 15 signal to sliding sun-roof control module. The operation of the sliding/tilting sun-roof (STR) is possible until a front door is opened after switching off ignition.

³⁾ Lock rotary latch must be engaged in second stage.

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Evaluating display group number 011

Display zone	Description	Display	Corrective action
1	Hood contact switch	operated not operated not installed	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant control module - Erase DTC memory - Perform functional check - Check DTC memory again
2	Trunk lid/tailgate contact switch ³⁾	open closed	
3	Sliding/tilting roof released	yes no	

³⁾ Lock rotary latch must be engaged in second stage.



Break down of display content for display group number 012

Display group 012 -Central control module-						
Read Measuring Value Block 12				→	◀ Indicated on display	
xxx	xxx	xxx	xxx			
1	2	3	4	◀ Display zones	Specification	Evaluation
				Optional equipment	Memory / empty ¹⁾	⇒ ⇒ Page 01-275
				Rear equipment	rl rl and rr rr empty ¹⁾	
				Front equipment	driver driver and passenger passenger empty ¹⁾	
				Check bus	Bus OK. Bus not OK.	

¹⁾ Empty means in this case: Display zone is blank

01-191



Evaluating display group number 012

Display zone	Description	Display	Corrective action
1	Check bus	Bus OK. Bus not OK.	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - If no changes occur, separate all door main connectors and reconnect one after the other again - Observe measured value block - If display changes, replace relevant control module - Erase DTC memory - Perform functional check - Check DTC memory again
			Continued on next page

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Display zone	Description	Display	Corrective action
2	Front equipment	driver driver and passenger passenger empty ¹⁾	These display zones simply show the relevant vehicle equipment - For example, checks can be made to see which control modules are actively connected to the system and which are not
3	Rear equipment	rl rl and rr rr empty ¹⁾	
4	Optional equipment	memory empty ¹⁾	

¹⁾ Empty means in this case: Display zone is blank

Example:

For DTC "Door control module (DCU), rear left not answering" can be directly seen if the DCU is connected.

For example, only "rr" is shown in display zone 3.



Break down of display content for display group number 013

Display group 013 -Central control module-						
Read Measuring Value Block 13				→ Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	◀ Display zones	Specification	Evaluation
				Key number	mv = display 0 to 4 0: not operated	⇒ ⇒ Page 01-278
				Algorithm	OK. not OK. no measured value	
				Code within effective range	OK. not OK. no measured value 1)	
				Permanent code known	OK. not OK. no measured value 1)	

1) If the remote control key is operated several times the third display - no measured value - will change to "OK.".



Evaluating display group number 013

Display zone	Description	Display	Corrective action
1	Permanent code known	OK. not OK. no measured value ²⁾ (Key currently not being operated)	If not OK.: - Key code is outside the code range. "Re-synchronize" radio wave remote control via function 10 (adaptation) ⇒ ⇒ Page 01-285 . For no measured value: - Battery in key is discharged. Change battery. - Radio wave remote control malfunctioning, replace key.
2	Code within effective range		
3	Algorithm		
1	key number	mv = 1 to 4 ¹⁾	When operating a "synchronized" radio wave key, the position of the "synchronized" key is shown. If the tester displays "0" even when the remote key is pressed, this key must be "re-synchronized" using adaptation (10).

1) A max. of 4 remote controls can be "learned".

2) If the remote control key is operated several times the third display - no measured value - will change to "OK."



Break down of display content for display group number 014

Display group 014 -Central control module-						
Read Measuring Value →				◀ Indicated on display		
Block 14						
xxx	xxx	xxx	xxx			
1	2	3	4	Display zones	Specification	Evaluation
				Switch positions, central locking thermo protection	0= Cut-off 1= Operation 3)	⇒ ⇒ Page 01-280
				Interior monitoring switch-off ¹⁾	on, off, not installed	
				Rear lid button and rear lid handle ^{2,4)}	not oper. TG hndl op implausible	
				Vehicle system voltage terminal 30	Volts	

1) Interior monitoring switch-off

2) Rear lid remote opening button and rear lid handle

3) Sequence for display: Driver's side (DS), front passenger's side (FPS), rear left (RL), rear right (RR), rear lid (rear)

4) DTC recorded if operated for longer than 10 seconds

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Evaluating display group number 014

Display zone	Description	Display	Corrective action
1	Vehicle system voltage terminal 30	in Volts	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	RLR button and RL handle ²⁾	not operated RLR, RL, implausible	
3	Interior monitoring switch-off ¹⁾	on, off, not installed	
4	Switch position, central locking thermo protection	11 11 1 0= Cut-off 1= Operation ³⁾	

¹⁾ Interior monitoring switch-off

²⁾ Rear lid remote opening button and rear lid handle

³⁾ Sequence for display: Driver's side (DS), front passenger's side (FPS), rear left (RL), rear right (RR), rear lid (rear)



Break down of display content for display group number 015

Display group 015 -Central control module-						
Read Measuring Value → Block 15				◀ Indicated on display		
xxx	xxx	xxx	xxx	◀ Display zones		Specification
1	2	3	4	4. Alarm source (4th last)		⇒ ⇒ Page 01-282
			3. Alarm source (3rd last)			
			2. Alarm source (2nd last)			
			1. Alarm source (last)			

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Break down of display content for display group number 015

Display zone	Description	Display	Corrective action
1	Alarm source (last)	Display see table below	Only the last 4 ATA ¹⁾ activations are shown! For example "32" = Hood contact switch (see table below for possible sources of alarm)
2	Alarm source (2nd last)		
3	Alarm source (3rd last)		
4	Alarm source (4th last)		

¹⁾ Anti-theft alarm

Possible sources of alarm	Display
Trunk lid/tailgate contact switch	1
Rear right rotary latch switch	2
Rear left rotary latch switch	4
Front pass. rotary latch switch	8
Ignition	16
Immobilizer	17
Hood contact switch	32
Ignition terminal 15	64
Driver's rotary latch switch	128
No alarm	255



Break down of display content for display group number 016

Display group 016						
Read Measuring Value Block 16				→ ◀ Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	◀ Display zones	Specification	Evaluation
				Empty ¹⁾		⇒ ⇒ Page 01-284
				Rear, first detent ²⁾	open, closed, not installed	
				Automatic lock / unlock switch	not relevant	
				Immobilizer key recognition	yes, no, not installed	

1) Empty means in this case: Display zone is blank

2) Lock rotary latch must be engaged in first detent

01-200



Evaluating display group number 016

Display zone	Description	Display	Corrective action
1	Immobilizer key recognition	yes, no, not installed	<ul style="list-style-type: none"> - Visual check of wiring - Watch display and check connectors of appropriate current circuit for correct engagement and tight fit - If the display does not change when checking connectors, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Automatic lock/unlock switch	Not relevant	
3	Rear, first detent ¹⁾	open, closed, not installed	

²⁾ Lock rotary latch must be engaged in first detent

01-201



DTC tables, vehicles from 06.01 on

Note:

- ◆ *The DTC table is listed according to the 5 digit code on the left.*
- ◆ *Some of the mentioned DTC texts are only displayed on the VAS 5051. On the V.A.G 1551 , only the DTC will be printed in this case.*
- ◆ *The possible malfunctions are dependant on the respective vehicle equipment.*
- ◆ *Explanation of the malfunction types (e.g. "open circuit/short circuit to Ground"):*

Scan tool operating instructions

- ◆ *Before replacing components indicated as being malfunctioning, check the wiring and connectors to these components as well as the Ground connections using wiring diagram. This is particularly relevant if DTC's are output as "occurring sporadically" (SP).*
- ◆ *The DTC's displayed can be localized using the test table.*

Note:

- ◆ *This malfunction "no communication" can also appear with the door control modules. This has no influence on the function of the convenience system and is therefore of no consequence. Erase DTC memory.*

01333 049

Door CU -J388

No communication



Scan tool print-out: The number shown here in bold 049 (e.g.) has no relevance.

01-202



V.A.G 1551 display	Possible cause	Corrective action
00000 No DTC recognized	If "No DTC recognized" appears after carrying out repairs On Board Diagnostic (OBD) is ended	
00849 S-terminal on ignition/starter switch -D- Undefined switch condition	<ul style="list-style-type: none"> ◆ Terminal 15 OK. but S-terminal malfunctioning ◆ Faulty wiring or connectors 	- Read Measuring Value Block; Display group number 006 ⇒ ⇒ Page 01-262 , Display zone 3

01-203



V.A.G 1551 display	Possible cause	Corrective action
00893 Button for tailgate/rear lid release - E234- Implausible signal ¹⁾	◆ Faulty wiring or connectors	- Read Measuring Value Block; Display group number 013 ⇒ ⇒ Page 01-277 , display zone 1

¹⁾ DTC recorded if button pressed for longer than 5 minutes.

01-204



V.A.G 1551 display	Possible cause	Corrective action
<p>00912 Electric window switch FL - E40-</p> <p>Implausible signal</p> <p>Short to Ground</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Button installation not OK., sticks when operated ◆ Electric window switch, FL -E40- malfunctioning 	<p>- Read Measuring Value Block; Display group number 001 ⇒ ⇒ Page 01-252 , display zone 1</p> <p>- Check button</p>
<p>00913 Electric window switch FR, driver's door -E81-</p> <p>Implausible signal</p> <p>Short to Ground</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Button installation not OK., sticks when operated ◆ Electric window switch, FR -E81- malfunctioning 	<p>- Read Measuring Value Block; Display group number 002 ⇒ ⇒ Page 01-254 , display zone 1</p> <p>- Check button</p>

01-205



V.A.G 1551 display	Possible cause	Corrective action
<p>00914</p> <p>Electric window switch RL, driver's door -E53-</p> <p>Implausible signal</p> <p>Short to Ground</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Button installation not OK., sticks when operated ◆ Electric window switch, RL -E53- malfunctioning 	<p>- Read Measuring Value Block; Display group number 002 ⇒ ⇒ Page 01-254 , display zone 2</p> <p>- Check button</p>
<p>00915</p> <p>Electric window switch RR, driver's door -E55-</p> <p>Implausible signal</p> <p>Short to Ground</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Button installation not OK., sticks when operated ◆ Electric window switch, RR -E55- malfunctioning 	<p>- Read Measuring Value Block; Display group number 002 ⇒ ⇒ Page 01-254 , display zone 3</p> <p>- Check button</p>

01-206



V.A.G 1551 display	Possible cause	Corrective action
00928 Locking unit for driver's side CL -F220- Implausible signal Wrong equipment	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on driver's door ◆ Lock unit mechanics and operating components are stiff/partially seized ◆ Locking unit for driver's side central locking -F220- malfunctioning ◆ Wrong locking unit installed ¹⁾ 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to driver's door control module or to door main connector (lower left footwell) - Check lock unit mechanical components and operating components and make serviceable - Replace locking unit for driver's door central locking - F220- - Replace locking unit

¹⁾ If a rest of world lock is installed in a USA vehicle, there is a safe feedback via an additional switch (safe switch).

01-207



V.A.G 1551 display	Possible cause	Corrective action
00929 Locking unit for front passenger's side CL -F221- Implausible signal Wrong equipment	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on front passenger's door ◆ Lock unit mechanics and operating components are stiff/partially seized ◆ Locking unit for front passenger's central locking -F221- malfunctioning ◆ Wrong locking unit installed ¹⁾ 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to front passenger's door control module or to door main connector (lower right footwell) - Check lock unit mechanical components and operating components and make serviceable - Replace locking unit for front passenger's door central locking -F221- - Replace locking unit

¹⁾ If a rest of world lock is installed in a USA vehicle, there is a safe feedback via an additional switch (safe switch).

01-208



V.A.G 1551 display	Possible cause	Corrective action
00930 Locking unit for left rear CL -F222- Implausible signal Wrong equipment	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on left rear door ◆ Lock unit mechanics and operating components are stiff/partially seized ◆ Locking unit for left rear central locking -F222- malfunctioning ◆ Wrong locking unit installed ¹⁾ 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to rear left door control module or to door main connector (in B pillar left) - Check lock unit mechanical components and operating components and make serviceable - Replace locking unit for rear left central locking -F222- - Replace locking unit

¹⁾ If a rest of world lock is installed in a USA vehicle, there is a safe feedback via an additional switch (safe switch).

01-209



V.A.G 1551 display	Possible cause	Corrective action
00931 Locking unit for right rear CL -F223- Implausible signal Wrong equipment	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on right rear door ◆ Lock unit mechanics and operating components are stiff/partially seized ◆ Locking unit for right rear central locking -F223- malfunctioning ◆ Wrong locking unit installed ¹⁾ 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to right rear door control module or to door main connector (in B pillar right) - Check lock unit mechanical components and operating components and make serviceable - Replace locking unit for right rear central locking -F223- - Replace locking unit

¹⁾ If a rest of world lock is installed in a USA vehicle, there is a safe feedback via an additional switch (safe switch).

01-210



V.A.G 1551 display	Possible cause	Corrective action
<p>00932</p> <p>Electric window motor, driver's side -V147-</p> <p>No or incorrect adjustment</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on driver's door ◆ Window lifter mechanical components are stiff/partially seized ¹⁾ ◆ Driver's side window motor -V147- malfunctioning ◆ No setting for automatic opening and closing 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to driver's door control module or to door main connector (footwell lower left) (LHD) - Check window lifter mechanical components and make serviceable ¹⁾ - Replace driver's side window motor -V147- - Perform setting for automatic opening and closing <p>⇒ Repair Manual, Body Exterior, Repair Group 64</p>

¹⁾ It is also possible that the door window runs tight in window guides

01-211



V.A.G 1551 display	Possible cause	Corrective action
<p>00933 Electric window motor, front passenger's side -V148-</p> <p>No or incorrect adjustment</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on front passenger's door ◆ Window lifter mechanical components are stiff/partially seized ¹⁾ ◆ Front passenger's window motor -V148- malfunctioning ◆ No setting for automatic opening and closing 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to front passenger's door control module or to door main connector (lower right footwell) - Check window lifter mechanical components and make serviceable ¹⁾ - Replace front passenger's window motor -V148- - Perform setting for automatic opening and closing <p>⇒ Repair Manual, Body Exterior, Repair Group 64</p>

¹⁾ It is also possible that the door window runs tight in window guides

01-212



V.A.G 1551 display	Possible cause	Corrective action
00934 Electric window motor, left rear -V26- No or incorrect adjustment	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on left rear door ◆ Window lifter mechanical components are stiff/partially seized ¹⁾ ◆ Left rear window motor - V26- malfunctioning ◆ No setting for automatic opening and closing 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to left rear door control module or to door main connector (in left B pillar) (LHD) - Check window lifter mechanical components and make serviceable ¹⁾ - Replace left rear window motor -V26- - Perform setting for automatic opening and closing ⇒ Repair Manual, Body Exterior, Repair Group 64

¹⁾ It is also possible that the door window runs tight in window guides

01-213



V.A.G 1551 display	Possible cause	Corrective action
<p>00935 Electric window motor, right rear -V27-</p> <p>No or incorrect adjustment</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on right rear door ◆ Window lifter mechanical components are stiff/partially seized ¹⁾ ◆ Right rear window motor -V27- malfunctioning ◆ No setting for automatic opening and closing 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to right rear door control module or to door main connector (in right B pillar) (LHD) - Check window lifter mechanical components and make serviceable ¹⁾ - Replace right rear window motor -V27- - Perform setting for automatic opening and closing <p>⇒ Repair Manual, Body Exterior, Repair Group 64</p>

¹⁾ It is also possible that the door window runs tight in window guides



V.A.G 1551 display	Possible cause	Corrective action
<p>00936 Window lifter switch, front passenger's side -E107- ¹⁾</p> <p>Implausible signal ¹⁾</p> <p>Short to B+</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Button installation not OK., sticks when operated ◆ Front passenger's window lifter switch - E107- malfunctioning 	<p>- Read Measuring Value Block; Display group number 004 ⇒ ⇒ Page 01-258 , display zone 1</p> <p>- Check button</p>

¹⁾ DTC recorded if button pressed in a direction for longer than 5 minutes, or both signals (open, close) occur simultaneously.

01-215



V.A.G 1551 display	Possible cause	Corrective action
<p>00937 Window lifter switch, rear left - E52- ¹⁾</p> <p>Implausible signal</p> <p>Short to B+</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Button installation not OK., sticks when operated ◆ Window lifter switch, left rear -E52- malfunctioning 	<p>- Read Measuring Value Block; Display group number 005 ⇒ ⇒ Page 01-260 , display zone 1</p> <p>- Check button</p>

¹⁾ DTC recorded if button pressed in a direction for longer than 5 minutes, or both signals (open, close) occur simultaneously.

01-216



V.A.G 1551 display	Possible cause	Corrective action
00938 Window lifter switch, right rear -E54- ¹⁾ Implausible signal Short to B+	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Button installation not OK., sticks when operated ◆ Window lifter switch right rear -E54- malfunctioning 	- Read Measuring Value Block; Display group number 005 ⇒ ⇒ Page 01-260 , display zone 3 - Check button

¹⁾ DTC recorded if button pressed in a direction for longer than 5 minutes, or both signals (open, close) occur simultaneously.

01-217



V.A.G 1551 display	Possible cause	Corrective action
00939 Mirror adjustment motor, driver's side - V149-	<ul style="list-style-type: none">◆ Faulty wiring or connectors◆ No voltage supply to driver's door◆ Driver's side mirror adjustment motor -V149- malfunctioning	<ul style="list-style-type: none">- Check wiring and connectors using wiring diagram- Check voltage supply to driver's door control module or to door main connector (lower left footwell) (LHD)- Replace mirror adjustment motor, driver's side -V149-

01-218



V.A.G 1551 display	Possible cause	Corrective action
00940 Mirror adjustment motor, front passenger's side - V150-	<ul style="list-style-type: none">◆ Faulty wiring or connectors◆ No voltage supply for central locking on front passenger's door◆ Front passenger's side mirror adjustment motor - V150- malfunctioning	<ul style="list-style-type: none">- Check wiring and connectors using wiring diagram- Check voltage supply to front passenger's door control module or to door main connector (lower right footwell)- Replace mirror adjustment motor, front passenger's side -V150-

01-219



V.A.G 1551 display	Possible cause	Corrective action
00941 Exterior mirror retraction motor, driver's side -V121-	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply to driver's door ◆ Exterior mirror retraction motor, driver's side -V121- malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to driver's door control module or to door main connector (lower left footwell) (LHD) - Replace exterior mirror retraction motor, driver's side -V121- - Check exterior mirror retraction function ¹⁾

¹⁾ To do this the vehicle must be driven at ≥ 15 km/h (9 mph) either on a rolling road or during a test drive. The mirrors must not be retracted again. Retracting mirrors must though return to their normal position.

01-220



V.A.G 1551 display	Possible cause	Corrective action
00942 Exterior mirror retraction motor, passenger's side -V122-	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply to passenger's door ◆ Exterior mirror retraction motor, passenger's side - V122- malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to passenger's door control module or to door main connector (lower right footwell) (LHD) - Replace exterior mirror retraction motor, passenger's side -V122- - Check exterior mirror retraction function ¹⁾

¹⁾ To do this the vehicle must be driven at ≥ 15 km/h (9 mph) either on a rolling road or during a test drive. The mirrors must not be retracted again. Retracting mirrors must though return to their normal position.

01-221



V.A.G 1551 display	Possible cause	Corrective action
00943 Heated exterior mirror, driver's side - Z4-		
00944 Heated exterior mirror, front passenger's side -Z5-	<ul style="list-style-type: none"> ◆ Mirror heater not installed ◆ Faulty wiring or connectors ◆ No voltage supply to driver's/front passenger's doors 	<ul style="list-style-type: none"> - Read Measuring Value Block; Display group number 003 ⇒ ⇒ Page 01-256 , display zone 4. Measured value block shows if rear window button is being read correctly - Check wiring and connectors using wiring diagram - Check voltage supply to door control modules or to door main connectors (lower left and right foot wells)

01-222



V.A.G 1551 display	Possible cause	Corrective action
00945 Crash sensor for front airbag -G190- Short to Ground	♦ Faulty wiring or connectors	- Check wiring and connectors using wiring diagram - Output can also be checked using Output Diagnostic Test Mode (DTM) ⇒ ⇒ Page 01-87
00946 Interior light -W- Short to B+	♦ Faulty wiring or connectors ♦ Interior light or one of the reading lights are malfunctioning	- Check wiring and connectors using wiring diagram - Replace interior light or malfunctioning reading light

01-223



V.A.G 1551 display	Possible cause	Corrective action
00947 Tailgate/trunk lid remote control switch -E188- Short to Ground	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Tailgate/trunk lid remote control switch -E188- malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Replace tailgate/trunk lid remote control switch -E188-
00948 Signal, close sliding roof Short to B+	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram

01-224



V.A.G 1551 display	Possible cause	Corrective action
<p>00949 Motor for tailgate/trunk lid CL -V53-lock ¹⁾</p> <p style="text-align: right;">Undefined switch position</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Lock mechanical components are stiff/partially seized ◆ Tailgate/trunk lid lock/unlock motor malfunctioning ¹⁾, ²⁾ 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check lock mechanical components and make serviceable - Replace tailgate/trunk lid lock/unlock motor ¹⁾, ²⁾
<p>00950 Motor for tailgate/trunk lid CL -V53-unlock ²⁾</p> <p style="text-align: right;">Undefined switch position</p>		

¹⁾ Lock = Lock

²⁾ Unlock = Unlock

01-225



V.A.G 1551 display	Possible cause	Corrective action
00951 Release for tailgate/trunk lid remote release -J398- (Only USA) Short to B+	◆ Faulty wiring or connectors	- Check wiring and connectors using wiring diagram
00952 Signal driver's door open Short to B+	◆ Faulty wiring or connectors	- Check wiring and connectors using wiring diagram

01-226



V.A.G 1551 display	Possible cause	Corrective action
00953 Time limit interior light Undefined switch position	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Interior light, reading lights and luggage compartment connections malfunctioning ◆ Interior light malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check wiring and connectors using wiring diagram - Replace interior light
00954 Starter inhibitor relay -J433-1),2) Short to B+	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Starter inhibitor relay -J433- malfunctioning (USA) 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Replace starter inhibitor relay -J433-(USA)

1) Not displayed on scan tool display at present

2) Only vehicles for USA or vehicles without immobilizer

01-227



V.A.G 1551 display	Possible cause	Corrective action
00955 Key 1 Adaptation limit exceeded	<ul style="list-style-type: none"> ◆ Key not matched ◆ Key operated more than 200 times beyond range of system 	- Read Measuring Value Block; display group number 014 ⇒ ⇒ Page 01-279 , display zone 1 to 4
00956 Key 2 Adaptation limit exceeded		
00957 Key 3 Adaptation limit exceeded		
00958 Key 4 Adaptation limit exceeded		

01-228



V.A.G 1551 display	Possible cause	Corrective action
01030 Key button CL driver's side, locking Implausible signal Short to Ground ¹⁾	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Lock cylinder sticks ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Read Measuring Value Block; Display group number 007 ⇒ ⇒ Page 01-264 , display zone 1 - Check lock cylinder installation
01031 Key button CL driver's side, unlocking Implausible signal Short to Ground ¹⁾	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Lock cylinder sticks ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Read Measuring Value Block; Display group number 007 ⇒ ⇒ Page 01-264 , display zone 1 - Check lock cylinder installation

¹⁾ DTC recorded if operated for longer than 5 minutes

01-229



V.A.G 1551 display	Possible cause	Corrective action
<p>01032 Key button CL front passenger's side, locking</p> <p>Implausible signal</p> <p>Short to Ground ¹⁾</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Lock cylinder sticks ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Read Measuring Value Block; Display group number 007 ⇒ ⇒ Page 01-264 , display zone 2 - Check lock cylinder installation
<p>01033 Key button CL front passenger's side, unlocking</p> <p>Implausible signal</p> <p>Short to Ground ¹⁾</p>		<ul style="list-style-type: none"> - Read Measuring Value Block; Display group number 007 ⇒ ⇒ Page 01-264 , display zone 2

¹⁾ DTC recorded if operated for longer than 5 minutes

01-230



V.A.G 1551 display	Possible cause	Corrective action
01034 Electric window thermo protection active, driver	<ul style="list-style-type: none">◆ Faulty wiring or connectors◆ Electric window sticking or binding◆ Electric window motor binding	- Read Measuring Value Block; Display group number 001 ⇒ ⇒ Page 01-252 , display zone 2
01035 Electric window thermo protection active, passenger		- Read Measuring Value Block; Display group number 004 ⇒ ⇒ Page 01-258 , display zone 2

01-231



V.A.G 1551 display	Possible cause	Corrective action
01036 Electric window thermo protection active, RL	<ul style="list-style-type: none">◆ Faulty wiring or connectors◆ Electric window sticking or binding◆ Electric window motor binding	- Read Measuring Value Block; Display group number 005 ⇒ ⇒ Page 01-261 , display zone 2
01037 Electric window thermo protection active, RR		- Read Measuring Value Block; Display group number 005 ⇒ ⇒ Page 01-261 , display zone 4

01-232



V.A.G 1551 display	Possible cause	Corrective action
01038 Central locking thermo protection	<ul style="list-style-type: none">◆ Faulty wiring or connectors◆ Door lock stiff	<ul style="list-style-type: none">- Read Measuring Value Block; Display group number 008 ⇒ ⇒ Page 01-266 , display zone 4
01044 Control module incorrectly coded	<ul style="list-style-type: none">◆ Control module installed does not correspond to the vehicle equipment◆ Control module supplied is not programmed or not fully programmed	<ul style="list-style-type: none">- Replace control module- Inform part supplier of the problem

01-233



V.A.G 1551 display	Possible cause	Corrective action
01131 Turn signal activation Undefined switch position	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Fuse S144 faulty 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Perform Output Diagnostic Test Mode (DTM) ⇒ ⇒ Page 01-247 - Check fuses using wiring diagram or replace
01134 Alarm horn -H12- Undefined switch position	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Fuse S111 faulty ◆ Alarm horn -H12- malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Perform Output Diagnostic Test Mode (DTM) ⇒ ⇒ Page 01-247 - Check fuses using wiring diagram or replace - Replace alarm horn -H12-

01-234



V.A.G 1551 display	Possible cause	Corrective action
<p>01135</p> <p>Interior monitoring sensors</p> <p>Open circuit</p> <p>malfunctioning</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Sensors for monitoring interior not installed ◆ Sensors for monitoring interior malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Read Measuring Value Block; Display group number 015 ⇒ ⇒ Page 01-281 , display zone 2 - Check installation - Replace sensors for monitoring interior
<p>01141</p> <p>Luggage compartment unlocking switch -E165-</p> <p>Implausible signal</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Luggage compartment unlocking switch -E165- is malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Replace luggage compartment unlocking switch -E165-

01-235



V.A.G 1551 display	Possible cause	Corrective action
01179 Incorrect key programming	◆ Matching of keys (function 10) not performed correctly	- See description for matching keys with remote control, ⇒ Page 01-285 - Read Measuring Value Block; Display group number 014 ⇒ ⇒ Page 01-279 , display zones 1 to 4

01-237



V.A.G 1551 display	Possible cause	Corrective action
<p>01329</p> <p>Convenience system data BUS in emergency mode</p>	<p>◆ Faulty wiring or connectors</p>	<p>- Check wiring and connectors using wiring diagram</p> <p>Wiring OK., then:</p> <p>- Disconnect all door main connectors and reconnect one after the other while observing measured value block</p> <p>- Replace the control module that has blocked the bus</p> <p>Note: New DTC's are stored, these must be erased</p> <p>- Read Measuring Value Block; Display group number 011 ⇒ ⇒ Page 01-272 , display zone 4</p>

01-238



V.A.G 1551 display	Possible cause	Corrective action
<p>01330 Central control module for convenience system -J393-</p> <p style="text-align: right;">Malfunctioning</p> <p style="text-align: right;">Voltage supply too high</p> <p style="text-align: right;">Voltage supply too low</p>	<ul style="list-style-type: none"> ◆ Central control module for convenience system malfunctioning ◆ Battery -A- malfunctioning or discharged ◆ Voltage regulator -C1- malfunctioning ◆ Alternator -C- malfunctioning ◆ Battery -A- malfunctioning or discharged 	<p>- Replace convenience system central control module</p> <p>- Check wiring and connectors using wiring diagram</p> <p>- Read Measuring Value Block; Display group number 006 ⇒ ⇒ Page 01-262 , display zone 1</p>

01-239



V.A.G 1551 display	Possible cause	Corrective action
<p>01331</p> <p>Door control module driver's side -J386-</p> <p>Malfunctioning</p> <p>No communication</p> <p>Voltage supply too high</p> <p>Voltage supply too low</p>	<ul style="list-style-type: none"> ◆ Door control module, driver's side -J386- malfunctioning ◆ Faulty wiring or connectors ◆ Battery -A- malfunctioning or discharged ◆ Voltage regulator - C1- malfunctioning ◆ Alternator -C- malfunctioning ◆ Battery -A- malfunctioning or discharged 	<ul style="list-style-type: none"> - Replace door control module, driver's side -J386- - Check wiring and connectors using wiring diagram - The system, even with the DTC entry, is OK. - Erase DTC memory - Perform functional check - Using Read Measuring Value Block; display group number 012 ⇒ ⇒ Page 01-274 , display zone 2, a check can be made to see if the door control module is installed or not. - Check wiring and connectors using wiring diagram - Read Measuring Value Block; Display group number 006 ⇒ ⇒ Page 01-262 , display zone 1

01-240



V.A.G 1551 display	Possible cause	Corrective action
<p>01332 Door control module, front passenger's side -J387-</p> <p>Malfunctioning</p> <p>No communication</p> <p>Voltage supply too high</p> <p>Voltage supply too low</p>	<ul style="list-style-type: none"> ◆ Door control module, passenger's side - J387- malfunctioning ◆ Faulty wiring or connectors ◆ Battery -A- malfunctioning or discharged ◆ Voltage regulator - C1- malfunctioning ◆ Alternator -C- malfunctioning 	<ul style="list-style-type: none"> - Replace door control module, passenger's side -J387- - Check wiring and connectors using wiring diagram - The system, even with the DTC entry, is OK. - Erase DTC memory - Perform functional check - Using Read Measuring Value Block; display group number 012 ⇒ ⇒ Page 01-274 , display zone 2, a check can be made to see if the door control module is installed or not. - Check wiring and connectors using wiring diagram - Read Measuring Value Block; Display group number 006 ⇒ ⇒ Page 01-262 , display zone 1

01-241



V.A.G 1551 display	Possible cause	Corrective action
<p>01333</p> <p>Door control module, rear left - J388-</p> <p>Malfunctioning</p> <p>No communication</p> <p>Voltage supply too high</p> <p>Voltage supply too low</p>	<ul style="list-style-type: none"> ◆ Door control module, rear left - J388- malfunctioning ◆ Faulty wiring or connectors ◆ Battery -A- malfunctioning or discharged ◆ Voltage regulator - C1- malfunctioning ◆ Alternator -C- malfunctioning 	<ul style="list-style-type: none"> - Replace door control module, rear left -J388- - Check wiring and connectors using wiring diagram - The system, even with the DTC entry, is OK. - Erase DTC memory - Perform functional check - Using Read Measuring Value Block; display group number 012 ⇒ ⇒ Page 01-274 , display zone 3, a check can be made to see if the door control module is installed or not. - Check wiring and connectors using wiring diagram - Read Measuring Value Block; Display group number 006 ⇒ ⇒ Page 01-262 , display zone 1

01-242



V.A.G 1551 display	Possible cause	Corrective action
<p>01334</p> <p>Door control module, rear right -J389-</p> <p>Malfunctioning</p> <p>No communication</p> <p>Voltage supply too high</p> <p>Voltage supply too low</p>	<ul style="list-style-type: none"> ◆ Door control module, rear right - J389- malfunctioning ◆ Faulty wiring or connectors ◆ Battery -A- malfunctioning or discharged ◆ Voltage regulator - C1- malfunctioning ◆ Alternator -C- malfunctioning 	<ul style="list-style-type: none"> - Replace door control module, rear right -J389- - Check wiring and connectors using wiring diagram - The system, even with the DTC entry, is OK. - Erase DTC memory - Perform functional check - Using Read Measuring Value Block; display group number 012 ⇒ ⇒ Page 01-274 , display zone 4, a check can be made to see if the door control module is installed or not. - Read Measuring Value Block; Display group number 006 ⇒ ⇒ Page 01-262 , display zone 1

01-243



V.A.G 1551 display	Possible cause	Corrective action
01335 Driver's seat/mirror position control module ¹⁾ Implausible signal No communication	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Seat memory control module diagnosis (no communication with door control module) ¹⁾ 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - The seat memory is equipped with its own K wire, this can be read via address word "36"

¹⁾ Function: The control module stores the seat and mirror positions and can reset to these positions

01-244



V.A.G 1551 display	Possible cause	Corrective action
<p>01358 Interior locking switch, driver's side -E150-</p> <p>Implausible signal</p> <p>Short to Ground</p>	<p>◆ Faulty wiring or connectors</p> <p>◆ Faulty wiring or connectors</p>	<p>- Check wiring and connectors using wiring diagram</p> <p>- Read Measuring Value Block; Display group number 007 ⇒ ⇒ Page 01-264 , display zone 3</p>
<p>01359 Interior locking switch, front passenger's side -E198-</p> <p>Implausible signal</p> <p>Short to Ground</p>	<p>◆ Faulty wiring or connectors</p> <p>◆ Faulty wiring or connectors</p>	<p>- Check wiring and connectors using wiring diagram</p> <p>- Read Measuring Value Block; Display group number 007 ⇒ ⇒ Page 01-264 , display zone 4</p>

01-245



V.A.G 1551 display	Possible cause	Corrective action
01362 Close switch for tailgate/trunk lid -F124 - ²⁾ Short to Ground ¹⁾	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Lock operating mechanism or lock cylinder mechanical components binding 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check lock operating components and make serviceable - Replace lock cylinder - Read Measuring Value Block; Display group number 008 ⇒ ⇒ Page 01-266 , display zone 2
01389 Open switch for tailgate/rear lid - F124- ²⁾ Implausible signal Short to Ground ¹⁾		

¹⁾ DTC recorded if operated for longer than 5 minutes

²⁾ Unclip contact switch on lock cylinder housing (with small screwdriver). -F124- =Contact switch in locking cylinder for tailgate/anti-theft alarm/central locking

01-246



V.A.G 1551 display	Possible cause	Corrective action
01483 Activation of rear lid remote unlocking Undefined switch position	♦ Faulty wiring or connectors	- Check wiring and connectors using wiring diagram
01484 Central locking key button, lock Short to Ground 1)	♦ Faulty wiring or connectors	- Check wiring and connectors using wiring diagram
01485 Central locking key button, unlock Short to Ground 1)	♦ Faulty wiring or connectors	- Check wiring and connectors using wiring diagram

1) DTC recorded if operated for longer than 10 seconds

01-247



Output Diagnostic Test Mode (DTM), vehicles from 06.01 on

The components displayed in the Output Diagnostic Test Mode (DTM) can differ depending upon the equipment fitted to the vehicle. For example on vehicles without ATA there will be no step "1" as listed in the table below.

The Output Diagnostic Test Mode (DTM) activates the following components in the stated sequence:

Step	Display in tester	Reaction
1	Interior light, reading lights	- Interior and reading lights are activated
2	"Safe" LED driver's door	- "Safe" LED lights up
3	Instrument illumination	- Switch illumination in control module active
4	Signal close sliding roof	- Sliding roof closes ¹⁾
5	Turn signal lights activation (for anti-theft alarm)	- Activated continuously (lights up cont.)
6	Alarm horn (for anti-theft alarm)	- Horn sounds continuously
7	END	- Information: End of regular final control test

¹⁾ When performing Output Diagnostic Test Mode (DTM) "Signal close sliding roof", the ignition and S-terminal must be inactive (no key in ignition/starter switch) and one of the front doors must be open.



Special tools, testers and auxiliary items

- ◆ V.A.G 1551 Scan tool or V.A.G 1552 vehicle system tester with V.A.G 1551/3 cable
- ◆ V.A.G 1594 Adapter set
- ◆ V.A.G 1527 LED test light
- ◆ Wiring diagram

Work sequence

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-96](#) .

Rapid data transfer
Select function XX

HELP



Indicated on display:

- Operate scan tool taking into account the information on the display:
- Input 03 for "Output Diagnostic Test Mode (DTM)" function.
- Switch off ignition and remove ignition key from ignition lock.



Rapid data transfer Q

03 Output Diagnostic Test Mode (DTM)



Indicated on display:

- Confirm entry with the -Q- button.

Final Control Diagnosis →



Indicated on display:

Perform Output Diagnostic Test Mode (DTM) by pressing button for each individual tests: See table on ⇒ ⇒ [Page 01-247](#) .

Output Diagnostic Test Mode (DTM) can be terminated by pressing the -C- button.

- Press → button.

If a component does not function:

- Continue Output Diagnostic Test Mode (DTM) to the end.



Read measuring value block, vehicles from 06.01 on

Special tools, testers and auxiliary items

- ◆ V.A.G 1551 Scan tool with V.A.G 1551/3 cable

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-96](#) .

The measured values in the functions Read Measuring Value Block and basic setting are described during the individual component test. This table serves only as an overview.

The measured value block is divided into 16 display group numbers. The assignment of the individual display zones can be taken from the display group overview ⇒ ⇒ [Page 01-252](#) .

Rapid data transfer Select function XX	HELP	⚡	Indicated on display: - Press buttons -0- and -8- (08 initiates the "Read Measuring Value Block" function).
Rapid data transfer 08 Read Measuring Value Block	Q	⚡	Indicated on display: - Confirm entry with the -Q- button.
Read Measuring Value Block Input display group number XX	HELP	⚡	Indicated on display:

Note:

The display group number 001 is an example, to illustrate the sequence.

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- Press buttons -0-, -0- and -1- for "Display group number 1" and confirm entry with -Q- button.

Read Measuring Value Block 1 →

1 2 3 4



Indicated on display: (1 to 4 = Display zones)

Note:

To change to another display group proceed as follows:

Display group	V.A.G 1551	V.A.G 1552
Higher	Press button - 3-	Press ↑ button
Lower	Press button - 1-	Press ↓ button
Skip	Press button - C-	Press button - C-

- Displayed after pressing -C- button.

Read Measuring Value Block HELP

Input display group number XXX



Indicated on display:

- Now enter the display group number required.



Display group overview, vehicles from 06.01 on

Break down of display content for display group number 001

Display group 001 -Driver's door-						
Read measured value block 1			→ ◀ Indicated on display			
xxx	xxx	xxx				
1	2	3	4	◀ Display zone	Specification	Evaluation
				Empty ¹⁾		
				Child safety switch	yes, no, not installed	⇒ ⇒ Page 01-253
				Driver's side electric window thermal protection ²⁾	yes, no	
				Electric window - Hall signal, driver's side	autom. open, autom. close, man. open, man. close not operated, implausible	

¹⁾ Empty means in this case: Display zone is blank

²⁾ Software thermo protection (overload protection for electric window motor). The electric window will be switched off for approx. 10...20 seconds



Evaluating display group number 001

Display zone	Designation	Display	Corrective action
1	Window regulator - Hall signal, driver's side	autom. open, autom. close, man. open, man. close not operated, implausible	- Functions only when ignition is "on"
2	Driver's side electric window thermal protection 1)	yes, no	- Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display. If the display does not change after checking connections, repair malfunction or replace relevant component. - Erase DTC memory - Perform functional check - Check DTC memory again
3	Child safety switch	off on not installed	



Break down of display content for display group number 002

Display group 002 -Driver's door-			
Read measured value block 2 →			
xxx	xxx	xxx	xxx
1	2	3	4
◀ Indicated on display			
◀ Display zones			
Empty ¹⁾			
Driver's switch for rear right electric window ^{1),2)}			
Driver's switch for rear left electric window ^{2),3)}			
Driver's switch for front passenger's side electric window ^{2),3)}			
Specification Evaluation			
autom. open, autom. close, man. open, man. close not operated, implausible autom. open, autom. close, man. open, man. close not operated, implausible autom. open, autom. close, man. open, man. close not operated, implausible ⇒ ⇒ Page 01-255			

¹⁾ Empty means in this case: Display zone is blank

²⁾ Part of door control module

³⁾ Rear left and rear right for 2 door and Midi (4 door with electric front windows): not installed

01-255



Evaluating display group number 002

Display zone	Description	Display	Corrective action
1	Driver's switch for front passenger's side electric window ¹⁾	autom. open, autom. close, man. open, man. close, not operated, implausible	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Perform functional check - Check DTC memory again
2	Driver's switch for rear left electric window ^{1),2)}	autom. open, autom. close, man. open, man. close, not operated implausible not installed ²⁾	
3	Driver's switch for rear right electric window ^{1),2)}	autom. open, autom. close man. open, man. close not operated, implausible not installed ²⁾	

¹⁾ Part of door operating unit

²⁾ Rear left and rear right for 2 door and Midi (4 door with electric front windows): not installed



Break down of display content for display group number 003

Display group 003 -Driver's door-				
Read measured value block 3			→	◀ Indicated on display
xxx	xxx	xxx	xxx	
1	2	3	4	◀ Display zones
				Mirror heating
				Empty ¹⁾
				Mirror selection switch, driver's side
				Mirror adjustment switch, driver's side
				Specification
				on, off
				not installed
				Evaluation
				⇒ ⇒ Page 01-257
				left, right,
				fold,
				not operated
				Pos X+, Pos X -
				Pos Y+, Pos Y -
				not operated

¹⁾ Empty means in this case: Display zone is blank

01-257



Evaluating display group number 003

Display zone	Description	Display	Corrective action
1	Driver's mirror adjustment switch FS	Pos X+ Pos X- Pos Y+ Pos Y- not operated	<ul style="list-style-type: none"> - Visual check of wiring - Check lock mechanism - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Driver's mirror selection switch	left right move mirror, not operated	
3			
4	Mirror heating	on, off not installed	

01-258



Break down of display content for display group number 004

Display group 004 -Passenger's door-						
Read measured value block 4 xxx xxx xxx			→	◀ Indicated on display		
1	2	3	4	◀ Display zones	Specification	Evaluation
				Empty ¹⁾		
				Empty ¹⁾		⇒ ⇒ Page 01-259
				Passenger's side electric window thermal protection ²⁾	yes, no	
				Electric window switch, front passenger's side	autom. open, autom. close, man. open, man. close not operated, implausible	

¹⁾ Empty means in this case: Display zone is blank

²⁾ Software thermo protection (overload protection for electric window motor). The electric window will be switched off for approx. 10...20 seconds

01-259



Evaluating display group number 004

Display zone	Description	Display	Corrective action
1	Electric window switch, front passenger's side	autom. open, autom. close, man. open, man. close not operated implausible	- Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely whilst simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Passenger's side elec. w. thermo protection ¹⁾	yes, no	
3			
4			

¹⁾ Software thermo protection (overload protection for electric window motor). The electric window will be switched off for approx. 10...20 seconds



Break down of display content for display group number 005

Display group 005 -Rear doors-						
Read measured value block 5			→ ◀ Indicated on display			
xxx	xxx	xxx	◀ Display zones		Specification	Evaluation
1	2	3	4	Electric window thermo protection, rear right ²⁾	yes, no	⇒ ⇒ Page 01-261
				Electric window switch, rear right ¹⁾	autom. open, autom. close, man. open, man. close, not operated, implausible	
				Electric window thermo protection, rear left ²⁾	yes, no	
				Electric window switch, rear left ¹⁾	autom. open, autom. close, man. open, man. close, not operated, implausible	

¹⁾ Rear left and rear right for 2 door and Midi (4 door with electric front windows): not installed

²⁾ Software thermo protection (overload protection for electric window motor). The electric window will be switched off for approx. 10...20 seconds

01-261



Evaluating display group number 005

Display zone	Description	Display	Corrective action
1	Electric window switch, rear left ¹⁾	autom. open, autom. close, man. open, man. close, not operated implausible	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Electric window thermo protection, rear left ²⁾	yes, no	
3	Electric window switch, rear right ¹⁾	autom. open, autom. close, man. open, man. close not operated implausible	
4	Electric window thermo protection, rear right ²⁾	yes, no	

¹⁾ Rear left and rear right for 2 door and Midi (4 door with electric front windows): not installed

²⁾ Software thermo protection (overload protection for electric window motor). The electric window will be switched off for approx. 10...20 seconds



Break down of display content for display group number 006

Display group 006						
Read measured value block 6				→	◀ Indicated on display	
xxx	xxx	xxx	xxx			
1	2	3	4	◀ Display zones	Specification	Evaluation
				Speed signal (Steps: 2 km/h)	mv 0 km/h (steps: 2 km/h)	⇒ ⇒ Page 01-263
			S-terminal		operated not operated	
		Ignition			Terminal 15 on, Terminal 15 off	
		Vehicle system voltage terminal 30			Volts	

01-263



Evaluating display group number 006

Display zone	Description	Display	Corrective action
1	Vehicle system voltage terminal 30	in Volts	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Ignition	Terminal 15 on Terminal 15 off	
3	S-terminal	operated not operated	
4	Speed signal	mv = km/h (steps: 2km/h)	



Break down of display content for display group number 007

Display group 007 -Driver's and passenger's door-						
Read measured value → block 7				◀ Indicated on display		
xxx	xxx	xxx	xxx	◀ Display zones		Evaluation
1	2	3	4			
				Interior locking switch, front pass. -E198- ¹⁾ (USA only)		⇒ ⇒ Page 01-265
				Driver's interior locking switch		
				Key switch, front passenger's side		
				Driver's central locking Key switch		
				lock, unlock, not operated, implausible ²⁾		
				lock unlock not operated, implausible ²⁾		
				open, closed, not operated, implausible		
				Open, close, not operated, implausible		

¹⁾ Lock/unlock switch, front passenger's side

²⁾ Implausible means: both directions simultaneously!

01-265



Evaluating display group number 007

Display zone	Description	Display	Corrective action
1	Driver's mirror adjustment switch FS	Open closed not operated implausible ²⁾	<ul style="list-style-type: none"> - Visual check of wiring - Check lock mechanism - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Key switch, front passenger's side	open closed not operated implausible	
3	Driver's interior locking switch	lock unlock not operated implausible ²⁾	
4	Interior locking switch, front passenger's side -E198- ¹⁾	locked unlocked not operated implausible ²⁾	

- 1) Lock/unlock switch, front passenger's side
- 2) Implausible means: both directions simultaneously!



Break down of display content for display group number 008

Display group 008 -Central control module-						
Read measured value →				◀ Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	Display zones	Specification	Evaluation
				Switch positions, central locking thermo protection	yes, no	⇒ ⇒ Page 01-267
				Rear lid/tailgate contact switch ¹⁾	open, closed	
				Rear lid/tailgate Key switch ²⁾	open, closed, not oper. implausible	
				Hood contact switch	operated, not operated, not installed	

¹⁾ Lock rotary latch must be engaged in second stage.

²⁾ Unclip contact switch on lock cylinder housing (with small lever)

01-267



Evaluating display group number 008

Display zone	Description	Display	Corrective action
1	Hood contact switch	operated not operated not installed	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely whilst simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Rear lid/tailgate Key switch ²⁾	open closed not oper. implausible	
3	Rear lid/tailgate contact switch ¹⁾	open closed implausible	
4	Switch position, central locking thermo protection	yes, no	

¹⁾ Lock rotary latch must be engaged in second stage.

²⁾ Unclip contact switch on lock cylinder housing (with small lever)



Break down of display content for display group number 009

Display group 009 -Central control module-						
Read measured value block 9				→ Indicated on display		
xxx	xxx	xxx	xxx	← Display zones		Specification
1	2	3	4			Evaluation
				Central locking feedback, rear right	safe, not safe locked, unlocked	⇒ ⇒ Page 01-269
				Central locking feedback, rear left	safe, not safe locked, unlocked	
				Central locking feedback, front passenger's side	Safe not Safe locked, unlocked	
				Central locking feedback, driver's side	Safe not Safe locked, unlocked	

1) Rear left and rear right for 2 door and Midi (4 door with electric front windows): not installed

01-269



Evaluating display group number 009

Display zone	Description	Display	Corrective action
1	Central locking feedback "locked", driver's side	safe not safe locked unlocked	<ul style="list-style-type: none"> - Visual check of wiring - Check lock mechanism - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Central locking feedback, front passenger's side	safe not safe locked unlocked	
3	Central locking feedback, rear left ¹⁾	safe not safe locked unlocked	
4	Central locking feedback, rear right ¹⁾	safe not safe locked unlocked	

¹⁾ Rear left and rear right for 2 door and Midi (4 door with electric front windows): not installed



Break down of display content for display group number 010

Display group 010 -Central control module-						
Read measured value block 10			→	◀ Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	Display zones	Specification	Evaluation
				Rotary latch switch, rear right ²⁾¹⁾	dr. open: 1 dr. closed: 0	⇒ ⇒ Page 01-271
				Rotary latch switch, rear left ²⁾¹⁾	dr. open: 1 dr. closed: 0	
				Passenger's side rotary latch switch ¹⁾	dr. open: 1, dr. closed: 0	
				Driver's side rotary latch switch ¹⁾	dr. open: 1, dr. closed: 0	

1) There is a contact switch in door lock

2) Rear left and rear right for 2 door and Midi (4 door with electric front windows): not installed

01-271



Evaluating display group number 010

Display zone	Description	Display	Corrective action
1	Driver's side rotary latch switch ¹⁾	Door open: 1 Door closed: 0	<ul style="list-style-type: none"> - Visual check of wiring - Check lock mechanism - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Passenger's side rotary latch switch ¹⁾	dr. open: 1 dr. closed: 0	
3	Rotary latch switch, rear left ²⁾¹⁾	dr. open: 1 dr. closed: 0	
4	Rotary latch switch, rear right ²⁾¹⁾	dr. open: 1 dr. closed: 0	

¹⁾ There is a contact switch in door lock

²⁾ Rear left and rear right for 2 door and Midi (4 door with electric front windows): not installed

01-272



Break down of display content for display group number 011

Display group 011						
Read measured value block 11			→	◀ Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	Display zones	Specification	Evaluation
				Two-wire	Two-wire	⇒ ⇒ Page 01-273
				Sliding/tilting sunroof released ¹⁾	yes, no	
				Automatic lock / unlock switch	operated, not oper. implausible	
				Immobilizer key recognition	yes, no, not installed	

¹⁾ The central control modules sends a delayed terminal 15 signal to sliding sun-roof control module. Operating the sliding/tilting sun-roof (STR) from inside vehicle is still possible until a front door is opened after switching off ignition.

01-273



Evaluating display group number 011

Display zone	Description	Display	Corrective action
1	Immobilizer key recognition	yes, no, not installed	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant control module - Erase DTC memory - Perform functional check - Check DTC memory again
2	Automatic lock/unlock switch	operated, not oper. implausible	
3	Sliding/tilting roof released ¹⁾	yes no	
4	One-wire/two-wire	two-wire = OK, Both data bus wires OK one-wire = not OK One wire of data bus wiring defective	

¹⁾ The central control modules sends a delayed terminal 15 signal to sliding sun-roof control module. Operating the sliding/tilting sun-roof (STR) from inside vehicle is still possible until a front door is opened after switching off ignition.

01-274



Break down of display content for display group number 012

Display group 012						
Read measured value block 12				→	◀ Indicated on display	
xxx	xxx	xxx	xxx			
1	2	3	4	◀ Display zones	Specification	Evaluation
				Door control module, right rear	RR door 1	⇒ ⇒ Page 01-275
				Door control module, left rear	RL door 1	
				Door control module, passenger's side	ps.door 1	
				Door control module, driver's side	dr. door 1	

01-275



Evaluating display group number 012

Display zone	Description	Display	Corrective action
1	Door control module, driver's side	<p>dr. door = OK</p> <p>Data reception from driver's side door control module via convenience data bus OK</p> <p>dr. door 0= not OK</p> <p>No data reception from driver's side door control module via convenience data bus</p>	<p>If data bus reception not OK</p> <p>- Check data bus to control module using wiring diagram</p>
2	Door control module, passenger's side	<p>ps. door = OK</p> <p>Data reception from passenger's side door control module via convenience data bus OK</p> <p>ps. door 0= not OK</p> <p>No data reception from passenger's side door control module via convenience data bus</p>	
			Continued on next page

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Evaluating display group number 012 - continued

Display zone	Description	Display	Corrective action
3	Door control module, rear lift	<p>RL door = OK</p> <p>Data reception from rear left door control module via convenience data bus OK</p> <p>RL door 0= not OK</p> <p>No data reception from rear left door control module via convenience data bus</p>	<p>If data bus reception not OK</p> <p>- Check data bus to control module using wiring diagram</p>
4	Door control module, rear right	<p>RR door = OK</p> <p>Data reception from rear right door control module via convenience data bus OK</p> <p>RR door 0= not OK</p> <p>No data reception from rear right door control module via convenience data bus</p>	

Example:

For fault "Door control module (DCU), rear left not answering" can be directly seen if the DCU is connected.

For example, only "rr" is shown in display zone 3.



Break down of display content for display group number 013

Display group 013 -Central control module-						
Read measured value block 13				→ Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	Display zones	Specification	Evaluation
				Empty ¹⁾		⇒ ⇒ Page 01-278
				Instrument illumination (in 16 steps, 0...100%)	mv (in 16 steps)	
				Rear, first detent ²⁾	open, closed, not installed	
				Rear lid button and rear lid handle ^{3,4)}	not oper. TG hndl op implausible	

- 1) Empty means in this case: Display zone is blank
- 2) Lock rotary latch must be engaged in first detent
- 3) Rear lid remote opening button and rear lid handle
- 4) Fault recorded if operated for longer than 10 seconds

01-278



Evaluating display group number 013

Display zone	Description	Display	Corrective action
1	RLR button and RL handle ¹⁾²⁾	not operated RLR, RL, implausible	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check memory again
2	Rear, first detent ³⁾	open, closed, not installed	
3	Instrument illumination	mv = 0...100% (in 16 steps)	

1) Rear lid remote opening button and rear lid handle

2) Fault recorded if operated for longer than 10 seconds

3) Lock rotary latch must be engaged in first detent



Break down of display content for display group number 014

Display group 014 -Central control module-						
Read measured value block 14				→ ◀ Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	◀ Display zones	Specification	Evaluation
				Key number	mv = display 0...4 0: not operated	⇒ ⇒ Page 01-280
				Algorithm	OK. not OK. no measured value	
				Code within effective range	OK. not OK. no measured value 1)	
				Permanent code known	OK. not OK. no measured value 1)	

1) If the remote control button is operated several times the third display - no measured value - will change to "OK.".



Evaluating display group number 014

Display zone	Description	Display	Corrective action
1	Permanent code known	OK. not OK. no measured value ²⁾ (Key currently not being operated)	If not OK.: - Key code is outside the code range. "Re-synchronize" radio wave remote control via function 10 (adaptation) ⇒ ⇒ Page 01-285 . For no measured value: - Battery in key is discharged. Change battery. - Radio wave remote control faulty, replace key.
2	Code within effective range		
3	Algorithm		
4	Key number	mv = 1...4 ¹⁾	

1) A max. of 4 remote controls can be "learned".

2) If the remote control key is operated several times the third display - no measured value - will change to "OK."

01-281



Break down of display content for display group number 015

Display group 015 -Central control module-						
Read measured value block 15				→	◀ Indicated on display	
xxx	xxx	xxx	xxx			
1	2	3	4	Display zones	Specification	Evaluation
				Empty ¹⁾		⇒ ⇒ Page 01-282
				Interior monitoring switch-off ²⁾	on, off, not installed	
				Interior monitor sensor	yes no not installed	
				Remote control module key button	open, closed, RLR ³⁾ , Panic ⁴⁾ (with 0 or 1)	

1) Empty means in this case: Display zone is blank

2) Interior monitoring switch-off

3) Only vehicles for USA, RLR = Rear lid remote release

4) Only vehicles for USA, alarm system and turn signal lights are activated



Break down of display content for display group number 015

Display zone	Description	Display	Corrective action
1	Remote control key button	unlock, lock, RLR ²⁾ , Panic ³⁾ (with 0 or 1)	- If necessary adapt radio wave remote control (Function 10, adaptation ⇒ ⇒ Page 01-285)
3	Interior monitor sensor	yes no not installed	
3	Interior monitoring switch-off ¹⁾	on, off, not installed	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again

¹⁾ Interior monitoring switch-off

²⁾ Only vehicles for USA, RLR = Rear lid remote release

³⁾ Only vehicles for USA, alarm system and turn signal lights are activated



Break down of display content for display group number 016

Display group 016 -Central control module-						
Read measured value → block 16				◀ Indicated on display		
xxx	xxx	xxx	xxx	◀ Display zones	Specification	Evaluation
1	2	3	4	4. Alarm source (4th last)	mv = Display, see table on ⇒ Page 01-284	⇒ ⇒ Page 01-284
				3. Alarm source (3rd last)		
				2. Alarm source (2nd last)		
				1. Alarm source (last)		

01-284



Evaluating display group number 016

Display zone	Description	Display	Corrective action
1	Alarm source (last)	See table below	Only the last 4 ATA ¹⁾ activations are shown! For example "2" = Front passenger rotary latch switch (see table below for possible sources of alarm)
2	Alarm source (2nd last)		
3	Alarm source (3rd last)		
4	Alarm source (4th last)		

¹⁾ Anti-theft alarm

Possible sources of alarm	Display
Driver's rotary latch switch	1
Front passenger rotary latch switch.	2
Rear left rotary latch switch	4
Rear right rotary latch switch	8
Rear lid/tailgate contact switch	16
Immobilizer	17
Engine hood contact switch	32
Ignition	64
No alarm	255



Adaptation

Ignition keys, matching to radio wave remote control

Note:

- ◆ *If new or additional ignition keys are required they must be matched to the immobilizer and convenience system control electronics.*
- ◆ *The matching procedure must always be carried out for all the ignition keys, including the existing ones.*
- ◆ *The number of keys already matched will be displayed when the adaptation (matching) function is selected.*
- ◆ *With the introduction of this generation of convenience system it is possible to program additional functions. The functions and the programming are described ⇒ ⇒ [Page 01-292](#) .*
- ◆ *The matching can be interrupted with the "C" button of the V.A.G 1551 .*

WARNING!

The V.A.G 1551 dealership number (workshop code) will be stored in immobilizer control module when matching ignition keys.



Prerequisites

- ◆ *All ignition keys available. If no old ignition key is available see "Lost key procedure",*

⇒ [Repair Manual, Electrical Equipment On Board Diagnostic \(OBD\), Repair Group 01; Matching ignition keys](#)

- ◆ *Key fob with covered secret number is available, if not see "Establishing secret number",*

⇒ [Repair Manual, Electrical Equipment On Board Diagnostic \(OBD\), Repair Group 01; Matching ignition keys](#)

- Insert correct profile ignition key in the ignition lock.
- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-96](#) .

The adaptation shown here is only an example.

Rapid data transfer
Select function XX

HELP



Indicated on display:

- Press buttons -1- and -0- (10 selects function "Adaptation").

Rapid data transfer
10 - Adaptation

Q



Indicated on display:

- Confirm entry with the -Q- button.

Adaptation
Enter channel number XX



Indicated on display:

- Press buttons -0- and -0- (all buttons are erased with channel number 00).

01-287



- Confirm entry with the Q button.

Note:

It is not possible to match a new or additional key(s) without erasing existing learned/matched key(s).

Adaptation	Q	◀	Indicated on display:
Erase learned values			- Confirm entry with the -Q- button.
Adaptation	→	◀	Indicated on display:
Learned values are erased			- Press → button.
Rapid data transfer	HELP	◀	Indicated on display:
Select function XX			- Press buttons -1- and -0- (10 selects function "Adaptation").
Rapid data transfer	Q	◀	Indicated on display:
10 - Adaptation			- Confirm entry with the -Q- button.
Adaptation		◀	Indicated on display:
Enter channel number XX			- Press buttons -0- and -1- (all keys are "learned" with channel number 01).
Adaptation	Q	◀	Indicated on display:
Enter channel number 01			- Confirm entry with the -Q- button.

01-288



<p>Channel 1.....Adaptation 1 → Key 1 < -1 3-></p>	<p>←</p>	<p>Indicated on display:</p> <p>The top line displays number of keys to be "learned" (standard =1). Select number of keys with buttons 1 and 3.</p> <p>- Press → button.</p>
<p>Channel 1.....Adaptation 1 → Enter matching value XXXXX</p>	<p>←</p>	<p>Indicated on display:</p> <p>- Press the -0- button four times and then enter the number of all ignition keys to be matched, including the existing key, (e.g. 00003); max. possible Qty. 4.</p> <p>- Press → button.</p>
<p>Channel 1 Adaptation 3 Q Key 3 < -1 3-></p>	<p>←</p>	<p>Indicated on display: Number of radio wave key to be "learned".</p> <p>- Confirm entry with the -Q- button.</p>
<p>Channel 1 Adaptation 3 Q Store amended value?</p>	<p>←</p>	<p>Indicated on display:</p> <p>- Confirm entry with the -Q- button.</p>
<p>Channel 1 Adaptation 1 → Amended value is stored</p>	<p>←</p>	<p>Indicated on display:</p> <p>- Press → button.</p>
<p>Rapid data transfer HELP Select function XX</p>	<p>←</p>	<p>Indicated on display:</p>

01-289



- A button must be pressed once, for at least 1 second, on each of the radio wave keys to be "learned" (in example above, 3 keys).
- Switch off ignition and remove ignition key.
- Perform functional check (e.g. 3) of radio wave keys.

Note:

- ◆ *All 3 keys (see example) can be "learned" in one matching sequence.*
- ◆ *15 seconds must not be exceeded when matching all ignition keys (pressing a button).*
- ◆ *A successful adaptation can be determined via Read Measuring Value Block, function 08, display group number 013, ⇒ [Page 01-277](#) . When operation the radio wave unit both of first measurement values must have the status OK. Simultaneously the last measurement value will show the positional number of the button (i.e. first, second, third, fourth button).*
- ◆ *If the remote control button is operated several times the third display -no measured value- changes to "OK".*

01-290



The matching of ignition keys is automatically terminated when:

- ◆ number of keys to be matched is reached.
- ◆ a button of one of the keys to be "learned" is pressed frequently.
- ◆ Permissible matching period of 15 seconds is exceeded (DTC is stored).

- Select function 02 "Check DTC memory". If there is no DTC stored, the matching of the Keys has been successfully completed.

- Press buttons -0- and -6- to end the output.

Rapid data transfer

Q



Indicated on display:

06 End output

- Confirm entry with the -Q- button.

Rapid data transfer

HELP



Indicated on display:

Enter address word XX

- Switch off ignition.

- Disconnect connector to V.A.G 1551 scan tool.

01-291



New additional key, matching

From model year 1999

- Insert a correct profile ignition key (old) in the ignition switch/lock.
- Switch on ignition.
- Lock the vehicle mechanically (driver's door) with a new key (to be learned) and then operate one of the radio wave keys on the key.
- Then after a pause of more than one second operate the radio wave key on the key a second time.
- The adaptation process is completed and will be confirmed by the vehicle horn sounding.

01-292



Radio wave remote control function variations, vehicles through 05.98

The various functions listed in the table can be called up and adapted by selecting the channel numbers 03 to 10.

Channel number	Relevance	Measured value
03	Auto-lock ²⁾	on=1 off=0
04	Auto-unlock ²⁾	on=1 off=0
05	IM switch-off ¹⁾	on=1 off=0
08	unlock = turn signals flash	on=1 off=0
09	lock = turn signals flash	on=1 off=0
10	Settings Alarm horn	1=Rest Eur. 2=Germany 3=GB

1) Interior monitoring

2) The vehicle will be locked at a speed of 15 km/h (approx. 9.5 MPH)

3) The vehicle will be locked at a speed of 15 km/h (approx. 9.5 MPH) and unlocked when ignition key is removed

01-293



The various functions listed in the table can be called up and adapted by selecting the channel numbers 03 to 10.

Radio wave remote control functional variations, vehicles from 06.98 on

Channel number	Significance	Measured value
03	Auto lock/unlock: Vehicles will be locked when a speed of 15 km/h is reached	on=1 off= 0
04	Auto lock/unlock: Vehicles will be unlocked when the ignition key is withdrawn from the ignition lock	on=1 off= 0
05	IM switch-off: Interior monitoring is activated or deactivated by operating central locking closed twice	on=1 off= 0
06	Horn sounds when unlocking: Confirmation signal when unlocking ¹⁾	on=1 off= 0
07	Horn sounds when locking: Confirmation signal when locking ¹⁾	on=1 off= 0
08	Turn signals flash when unlocking: Unlocking is confirmed by turn signals flashing twice	on=1 off= 0
09	Locking is confirmed by turn signals flashing once	on=1 off= 0
10	Setting for alarm horn: Programming the horn operation when the alarm is triggered appropriate to the legislation of the countries	1= Rest of Europe 2= Germany 3= Great Britain

¹⁾ No longer allowed according to German legislation.



The matching shown here is only an example.

Rapid data transfer Select function XX	HELP	◀	Indicated on display: - Press buttons -1- and -0- (10 selects function "Adaptation").
Rapid data transfer 10 - Adaptation	Q	◀	Indicated on display: - Confirm entry with the -Q- button.
Adaptation Enter channel number XX		◀	Indicated on display: - Press buttons -0- and -8- (channel number 08 switches the turn signals on or off when unlocking).
Adaptation Enter channel number 08	Q	◀	Indicated on display: - Confirm entry with the -Q- button.
Channel 8 Adaptation 1 Unlock Flashing on < -1 3->	→	◀	Indicated on display: - Press → button.
Channel 8.....Adaptation 1 Enter adaptation value XXXXX		◀	Indicated on display: - Press button -0- five times (e.g. 00000).
Channel 8.....Adaptation 0 Enter adaptation value 00000	Q	◀	Indicated on display: - Confirm entry with the -Q- button.

01-295

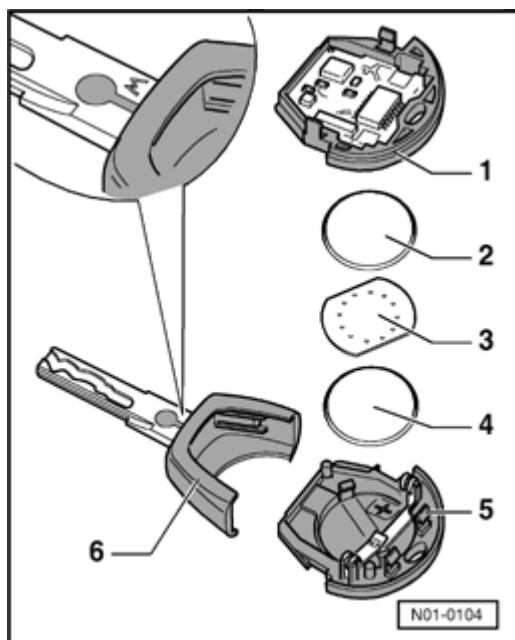


Channel 8 Adaptation 0 Unlock Flashing off < -1 3->	Q	◀	Indicated on display: - Confirm entry with the -Q- button.
Channel 8 Adaptation 0 Store amended value?	Q	◀	Indicated on display: - Confirm entry with the -Q- button.
Channel 8 Adaptation 0 Amended value is stored	→	◀	Indicated on display: - Press → button.
Rapid data transfer Select function XX	HELP	◀	Indicated on display: - Press buttons -0- and -6- to end the output.
Rapid data transfer 06 End output	Q	◀	Indicated on display: - Confirm entry with the -Q- button.
Rapid data transfer Enter address word XX	HELP	◀	Indicated on display: - Switch off ignition. - Disconnect connector to V.A.G 1551scan tool.

01-296



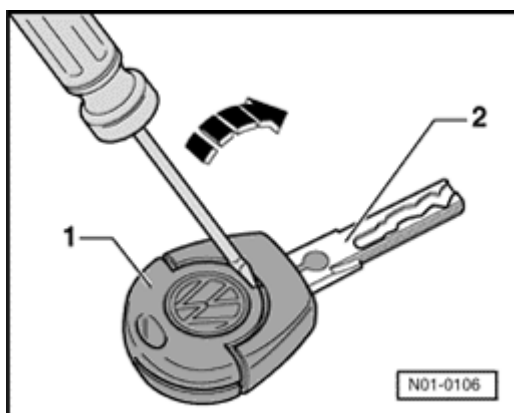
Batteries for the main key with radio wave remote control, removing and installing



- 1 - Transmitter unit - upper part (turned-over)
- 2 - Key battery
- 3 - Contact plate
- 4 - Key battery
- 5 - Transmitter unit - lower part
- 6 - Main key with variable code transponder

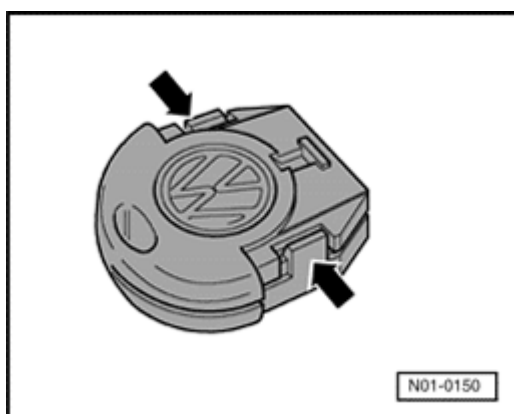
To be able to differentiate between a key with transponder and a key with variable code transponder the main key has a "w" stamped on it.

01-297



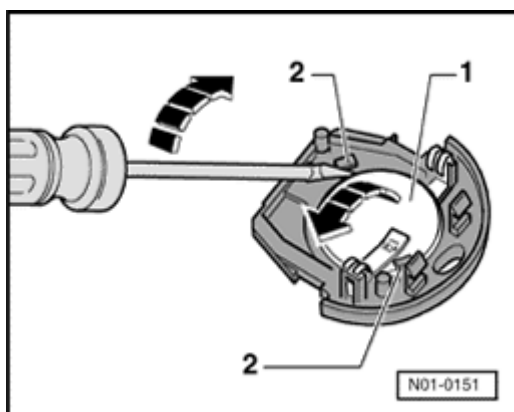
Removing

- ✦ - Insert a screwdriver in the slot between the transmitter unit -1- and the main key -2-.
- Move the screwdriver in direction of arrow and unclip the transmitter unit from the main key.

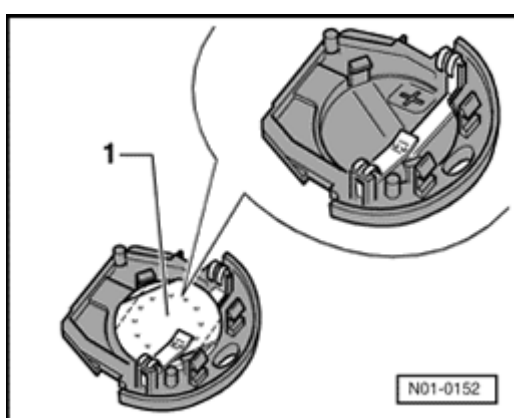


- ✦ - Lever the transmitter unit apart on the two locating lugs (arrows).

01-298



- Unclip upper battery -1- from the retainers -2- with a screwdriver in direction of arrow.



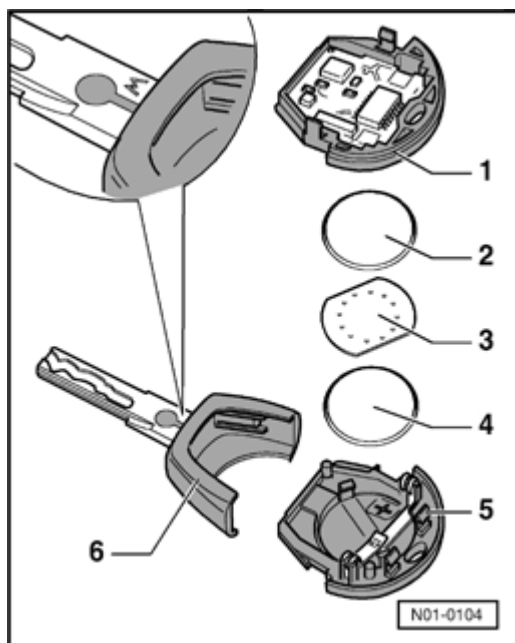
- The contact plate -1- has two straight edges. When these edges are turned towards the retainers the contact plate can be removed.
- The contact plate can also be unclipped with a screwdriver.
- Now unclip the lower battery from the retainers with a screwdriver.

01-299



Installing

Note the polarity and correct position when installing the batteries.

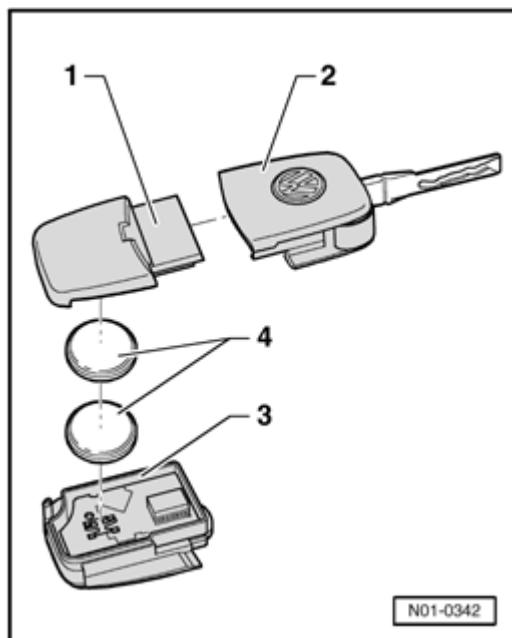


- Place the battery -4- with the positive terminal downwards into the sensor unit (positive terminal is marked on housing).
- Now place the contact plate -3- on the battery -4-.
- Place battery -2- with the positive terminal downwards onto the contact plate and secure.
- Place sensor unit -1- and sensor unit -5- together and clip together.
- Then engage the transmitter unit with the main key.

01-300



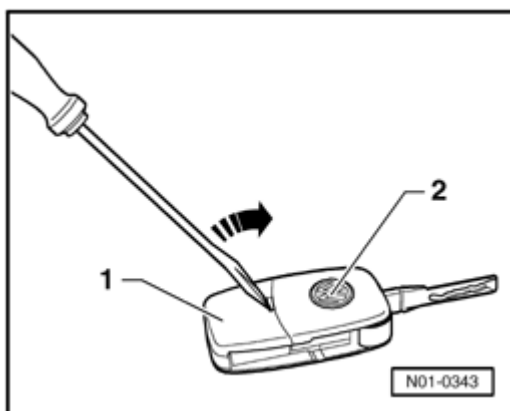
Batteries for the main key (folding) with radio wave remote control, removing and installing



A

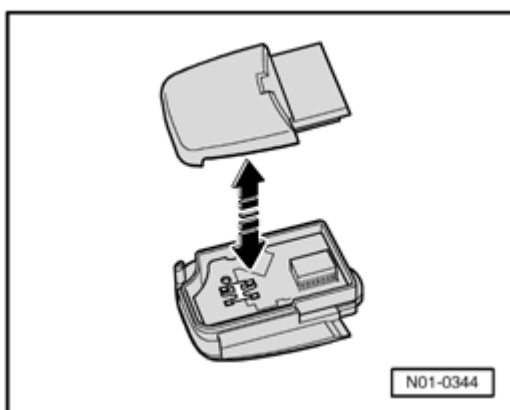
- 1 - Transmitter unit - upper part (turned-over)
- 2 - Main key with variable code transponder
- 3 - Transmitter unit - lower part
- 4 - Key battery

01-301



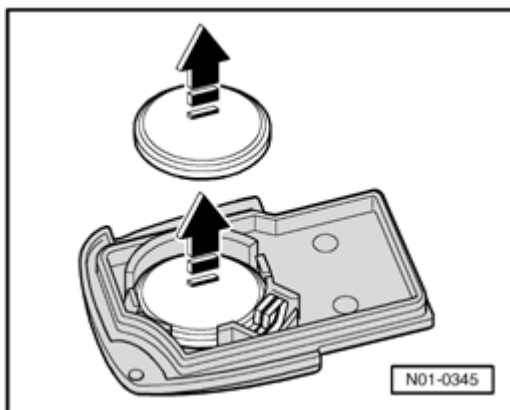
Removing

- ✦ - Insert a screwdriver in the slot between the transmitter unit -1- and the main key -2-.
- Move the screwdriver in direction of arrow and unclip the transmitter unit from the main key.



- ✦ - Press the transmitter unit apart in direction of arrow.

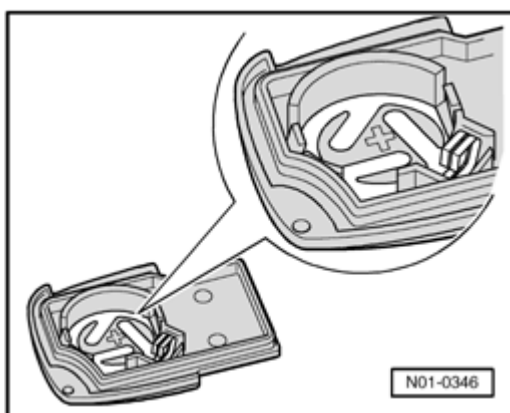
01-302



- Unclip batteries from the retainers in direction of arrow using a screwdriver.

Installing

Note the polarity and correct position when installing the batteries.



- Place the battery with the positive terminal downwards into the sensor unit (positive terminal is marked on housing).
- Engage battery in transmitter body by pressing down lightly.
- Install cover on transmitter body (do not damage seal).
- Then engage the transmitter unit with the main key.

01-303



Central locking system (vehicles without power windows), On Board Diagnostic (OBD)

Functional description

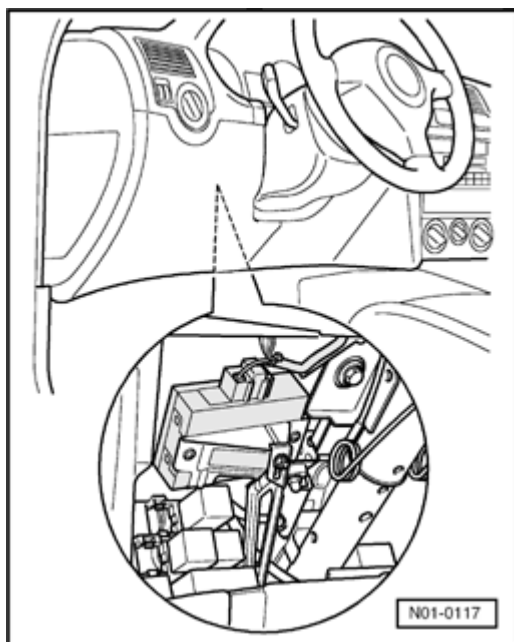
The locking units located in the doors (door lock) have an electric motor.

The motor locks the door and also takes care of the "Safe" condition, i.e. after locking at an external lock (door lock, tailgate, radio remote control) the vehicle is protected against theft and can no longer be unlocked from the interior. The feedback on the respective condition in control module occurs via the contact switch in the locking unit.

All the known convenience functions can be performed with the electric convenience system, interior lights control, ATA with interior monitoring and the radio remote control.

If the Airbag Control Module is triggered, a signal is sent to the convenience control module to unlock the doors.

01-304



✦ The Central Locking Control Module -J379- is located under the instrument panel and is secured by a bracket to the steering column. It is equipped with a DTC memory. The On Board Diagnostic (OBD) connection is located under the driver's knee bar to left of the steering wheel.

The control module detects malfunctions in the central locking system and stores them in a permanent memory.

To commence troubleshooting, initiate self-diagnosis and retrieve the stored information with the V.A.G 1551 scan tool.

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

The malfunction information displayed is used to refer to a DTC table with notes on the possible causes for directed repair measures.

Malfunctions which can be attributed to a temporary open circuit in the wiring or a loose contact, will also be stored. These malfunctions will be displayed as sporadic DTCs "SP".



Determining the items which have possibly triggered the anti-theft alarm system

The breakdown of the display content illustrated on ⇒ ⇒ [Page 01-368](#) for the display group number 10 gives information as to which component triggered the alarm system last, and can therefore help the troubleshooting/rectification.

This "DTC memory" cannot be erased.

Only statistical malfunctions are considered:

- ◆ Central locking inoperative
- ◆ Mirror positioning motor inoperative
- ◆ Electric window positioning motor inoperative
- ◆ CAN communication inoperative

Note:

Before changing a component erase DTC memory, perform functional checks and check DTC memory again.

01-306



System active indicator

The optical central locking system active indicator is via an additional LED in the upper part of the driver's door inner trim. The LED flashes for a period of time and then goes out.

When the LED is activated it will differentiate between the following functions:

- Central locking using SAFE system (lock once) LED activation then 50 milliseconds on and 950 milliseconds off, when the safe condition is obtained.
- Central locking not using SAFE system (lock twice) LED goes out.

The anti-theft alarm system (ATA) is not always displayed.

01-307



Convenience system, initiating On Board Diagnostic (OBD)

Test prerequisites:

- ◆ Voltage supply and fuses for the respective system OK.
- ◆ To initiate the On Board Diagnostic (OBD) the ignition must be switched on "Terminal 15 on".

Note:

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

Electrical Wiring Diagrams, Troubleshooting & Component Locations

- ◆ *Additional operating information can be printed out depending on the program by pressing the HELP button of V.A.G 1551 .*
- ◆ *The → button is used for advancing the program sequence.*
- ◆ *The PRINT button is used for switching on the printer (warning lamp in button lights up).*
- ◆ Connecting scan tool ⇒ ⇒ [Page 01-3](#)

- Switch on ignition.
- Switch on printer with Print button (warning lamp in button lights up).

01-308



- Press button -1- for "Rapid data transfer" mode.

Rapid data transfer HELP
Enter address word XX



Indicated on display:

Address word for the central locking: 35

Rapid data transfer HELP
Enter address word XX



Indicated on display:

- Press buttons -3- and -5-.

Rapid data transfer Q
35 Central locking



Indicated in display after entering the address word 35:

- Confirm entry with the -Q- button.

and then the following appears in the display:

Rapid data transfer Q
Tester sends the address word 35



Indicated on display:

1C0962258 XX Cent. Lock. 0001 →
Coding XXXXX WSC XXXXX



The control module identification will be shown on the V.A.G 1551 display, e.g.:

- Press → button.

Rapid data transfer HELP
Select function XX



Indicated on display:



Selectable functions, overview

	page
01 - Check Control Module Version	⇒ Page 01-310
02 - Check DTC Memory	⇒ Page 01-317
03 - Output Diagnostic Test Mode	⇒ Page 01-344
05 - Erase DTC Memory	⇒ Page 01-320
06 - End Output	⇒ Page 01-322
07 - Code Control Module	⇒ Page 01-313
08 - Read Measuring Value Block	⇒ Page 01-347
10 - Adaptation	⇒ Page 01-372

Note:

- ◆ *A list of possible functions is printed out after pressing the HELP button.*
- ◆ *Do not select further functions, which can be printed out after pressing the HELP button.*
- ◆ *After the function is completed the V.A.G 1551 returns to the following start position:*

Rapid data transfer

HELP



Indicated on display:

Select function XX

01-310



Check Control Module Version

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-307](#) .
- Switch on ignition.
- Press button -1- for "Rapid data transfer" mode.
- Switch on printer with Print button (warning lamp in button lights up).
- Press buttons -0- and -1-.

Rapid data transfer Q ↖
 01-Check Control Module Version

Indicated on display:

- Confirm entry with the -Q- button.

1C0962258 XX Cent. Lock. 0001 →
 Coding XXXXX WSC XXXXX



The control module identification will be shown on the V.A.G 1551 scan tool display, e.g.:

01-311

**Breakdown of the display:**

◆ Upper line	Part No. of control module system designation(XX ²) Cent. Locking 0001)
◆ Lower line	Code number (dealer code number) ¹)

1) - Will be automatically stored in the control module when entering the system.

2) A number or number/letter combination (03 or 6Q, or others) indicate a correct programming of the control module.

- Press → button.

Rapid data transfer
Select function XX

HELP



Indicated on display:

01-312

**Note:**

Rapid data transfer control module does not answer!	HELP	⏪	◆ <i>If one of the malfunction messages opposite appears in the display, the possible causes of the malfunction can be printed out with the HELP button.</i>
Rapid data transfer K wire not switching to B+!	HELP	⏪	◆ <i>Ignition must be switched on.</i>
Rapid data transfer No signal from control module!	→	⏪	◆ <i>Malfunctions have occurred at the start of or during the program (external interference?).</i>
Rapid data transfer Fault in communication build up	→	⏪	◆ <i>Check diagnosis wires as well as voltage supply and Ground connection.</i> - Press buttons -0- and -6- to end the output.
Rapid data transfer 06 End output	Q	⏪	Indicated on display: - Confirm entry with the -Q- button.
Rapid data transfer Enter address word XX	HELP	⏪	Indicated on display: - Switch off ignition. - Disconnect connector to V.A.G 1551 scan tool.



Central locking control module, coding

Note:

◆ When supplied the control module is precoded according to the vehicle equipment.

◆ The coding is performed with the V.A.G 1551 scan tool ⇒ ⇒ [Page 01-314](#) .

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-307](#) .

Rapid data transfer Select function XX	HELP	↖	Indicated on display: - Press buttons -0- and -7- (with 07 the function "Code control module" is selected).
Rapid data transfer 07 Code control module	Q	↖	Indicated on display: - Confirm entry with the -Q- button.
Code control module Enter code number XXXXX (0-32000)	Q	↖	Indicated on display: - Enter code number according to table:

01-314



Coding table, vehicles with central locking

05.01

Address word	Code number	
	2 doors	4 doors
35 Central Locking Manual windows, one door	00256	04096
35 Central Locking Manual windows, all doors	00257	04097

Coding table, vehicles with central locking

06.01

Address word	Code number	
	2 doors	4 doors
35 Central Locking Manual windows, one door	00016	00018
35 Central Locking Manual windows, all doors	00017	00019

01-315



- Confirm entry with the Q button.

1C0962258 XX Cent. Lock. 00001 →
Coding XXXXX WSC XXXXX



The control module identification number will be displayed with the corresponding letter index, the code number and the workshop code.

If the contents of the display are as shown then the coding is successful.

If the code number entered is not accepted by the control module, the previous coding will appear in the display:

1C0962258 XX Cent. Lock 00001 →
Coding XXXXX WSC XXXXX



Indicated on display:

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

01-316



- Repeat coding.

If the control module cannot be coded (correct control module, correct code number), the control module is malfunctioning.

Ending function:

- Press → button.

Rapid data transfer
Select function XX

HELP



Indicated on display:

- Press buttons -0- and -6- to end the output.
- Confirm entry with the -Q- button.

Rapid data transfer
06 End output

Q



Indicated on display:

- Switch off ignition.
- Disconnect connector to V.A.G 1551 scan tool.



Check DTC Memory

Note:

The vehicle system tester V.A.G 1552 can be used instead of the V.A.G 1551 scan tool, however a print-out is not possible.

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-307](#) .
- Switch on printer with Print button (warning lamp in button lights up).

Rapid data transfer
Select function XX

HELP



Indicated on display:

- Press buttons -0- and -2- (the function "Check DTC memory" is entered with 02).

Rapid data transfer
02 - Check DTC memory

Q



Indicated on display:

- Press "Print" button
- Confirm entry with the -Q- button.

X DTCs recognized!



The number of stored malfunctions appears in the display.

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

**Note:**

If a DTC is recognized:

◆ 1 . **Repair malfunction**

◆ 2. *Erase DTC memory (function 05).*

◆ 3. *Check DTC memory again (function 02).*

- The DTCs printed out can be repaired with aid of DTC table ⇒ ⇒ [Page 01-323](#) .
- The function "Read Measuring Value Block" ⇒ ⇒ [Page 01-347](#) and Display group overview ⇒ ⇒ [Page 01-349](#) are additional aids.

The measured value block is divided into 10 display group numbers. The assignment of the individual display zones can be taken from the display group overview ⇒ [Page 01-349](#) .

No DTC recognized!



If "No DTC recognized" is displayed the program will return to the initial position after pressing the → button.

Rapid data transfer

HELP



Indicated on display:

Select function XX

If something else is displayed:

Scan tool operating instructions

01-319



- Press buttons -0- and -6- to end the output.

Rapid data transfer Q
06 End output



Indicated on display:

- Confirm entry with the -Q- button.

Rapid data transfer HELP
Enter address word XX



Indicated on display:

- Switch off ignition.
- Disconnect connector to V.A.G 1551 scan tool.



Erase DTC memory

Note:

The vehicle V.A.G 1552 System tester can be used instead of the V.A.G 1551 scan tool, however a print-out is not possible.

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-307](#) .

Prerequisites:

- ◆ DTCs are repaired
- ◆ Functional check has been carried out
- ◆ DTC memory checked again

Rapid data transfer
Select function XX

HELP



Indicated on display:

- Press buttons -0- and -5- (the function "Erase DTC memory" is entered with 05).

Rapid data transfer
05 Erase DTC memory

Q



Indicated on display:

- Confirm entry with the -Q- button.

Rapid data transfer
DTC memory is erased!

→



Indicated on display:

- Press → button.

Rapid data transfer
Select function XX

HELP



Indicated on display:

01-321

**Note:****WARNING!**

DTC memory was not checked



- ◆ *If this appears in the display, the test sequence is faulty.*
- ◆ *Adhere strictly to test sequence; first of all check DTC memory, then erase memory.*
- Press buttons -0- and -6- to end the output.

Rapid data transfer

Q

06 End output



Indicated on display:

- Confirm entry with the -Q- button.

Rapid data transfer

HELP

Enter address word XX



Indicated on display:

- Switch off ignition.
- Disconnect connector to V.A.G 1551 scan tool.

01-322



End Output

- Press buttons -0- and -6- to end the output.

Rapid data transfer Q
06 End output



Indicated on display:

- Confirm entry with the -Q- button.

Rapid data transfer HELP
Enter address word XX



Indicated on display:

- Switch off ignition.
- Disconnect connector to V.A.G 1551 scan tool.



DTC table

Note:

- ◆ *The DTC table is listed according to the 5 digit code on the left.*
- ◆ *Some of the mentioned DTC texts are only displayed on the VAS 5051. On the V.A.G 1551 , only the DTC will be printed in this case.*
- ◆ *The possible malfunctions are dependant on the respective vehicle equipment.*
- ◆ *Explanation of the malfunction types (e.g. "open circuit/short circuit to Ground"):*

Scan tool operating instructions

- ◆ *Before replacing components indicated as malfunctioning, check the wiring and connectors to these components as well as the Ground connections using wiring diagram. This is particularly relevant if malfunctions are output as "occurring sporadically" (SP).*
- ◆ *The malfunctions displayed can be localized using the test table.*
- ◆ *This malfunction "no communication" can also appear with the door control modules. This has no influence on the function of the convenience system and is therefore of no consequence. Erase DTC memory.*

01333 049

Door CU -J388

no communication



Scan tool print-out: The number shown here in bold 049 (e.g.) has no relevance.

01-324



V.A.G 1551 display	Possible cause	Corrective action
00000 No DTC recognized	If "No DTC recognized" appears after carrying out repairs On Board Diagnostic (OBD) is ended	
00668 Vehicle voltage terminal 30 Signal too small	<ul style="list-style-type: none">◆ Battery discharged◆ Faulty wiring or connectors	<ul style="list-style-type: none">- Charge battery- Check wiring and connectors using wiring diagram

01-325



V.A.G 1551 display	Possible cause	Corrective action
<p>00849 S-terminal on ignition/starter switch - D-</p> <p>Undefined switch condition</p>	<ul style="list-style-type: none">◆ Terminal 15 OK. but S-terminal faulty ◆ Faulty wiring or connectors	<p>- Read Measuring Value Block; Display group number 006 ⇒ ⇒ Page 01-359 , Display zone 1</p>

01-326



V.A.G 1551 display	Possible cause	Corrective action
00928 Locking unit for driver's side CL -F220- Implausible signal Wrong equipment	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on driver's door ◆ Lock unit mechanics and operating components are stiff/partially seized ◆ Locking unit for driver's side central locking -F220- malfunctioning ◆ Wrong locking unit installed ¹⁾ 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to driver's door control module or to door main connector (lower left footwell) - Check lock unit mechanical components and operating components and make serviceable - Replace locking unit for driver's door central locking - F220- - Replace locking unit

¹⁾ If a rest of world lock is installed in a USA vehicle, there is a safe feedback via an additional switch (safe switch).

01-327



V.A.G 1551 display	Possible cause	Corrective action
00929 Locking unit for front passenger's side CL -F221- Implausible signal Wrong equipment	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on front passenger's door ◆ Lock unit mechanics and operating components are stiff/partially seized ◆ Locking unit for front passenger's central locking -F221- malfunctioning ◆ Wrong locking unit installed ¹⁾ 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to front passenger's door control module or to door main connector (lower right footwell) - Check lock unit mechanical components and operating components and make serviceable - Replace locking unit for front passenger's door central locking -F221- - Replace locking unit

¹⁾ If a rest of world lock is installed in a USA vehicle, there is a safe feedback via an additional switch (safe switch).

01-328



V.A.G 1551 display	Possible cause	Corrective action
00930 Locking unit for rear left CL -F222- Implausible signal Wrong equipment	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on rear left door ◆ Lock unit mechanics and operating components are stiff/partially seized ◆ Locking unit for rear left central locking -F222- malfunctioning ◆ Wrong locking unit installed ¹⁾ 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to rear left door control module or to door main connector (in B pillar left) - Check lock unit mechanical components and operating components and make serviceable - Replace locking unit for rear left central locking -F222- - Replace locking unit

¹⁾ If a rest of world lock is installed in a USA vehicle, there is a safe feedback via an additional switch (safe switch).

01-329



V.A.G 1551 display	Possible cause	Corrective action
00931 Locking unit for rear right CL -F223- Implausible signal Wrong equipment	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ No voltage supply for central locking on rear right door ◆ Lock unit mechanics and operating components are stiff/partially seized ◆ Locking unit for rear right central locking -F223- malfunctioning ◆ Wrong locking unit installed ¹⁾ 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check voltage supply to rear right door control module or to door main connector (in B pillar right) - Check lock unit mechanical components and operating components and make serviceable - Replace locking unit for rear right central locking -F223- - Replace locking unit

¹⁾ If a rest of world lock is installed in a USA vehicle, there is a safe feedback via an additional switch (safe switch).

01-330



V.A.G 1551 display	Possible cause	Corrective action
00945 Crash sensor for front airbag -G190- Short to Ground	◆ Faulty wiring or connectors	- Check wiring and connectors using wiring diagram - Output can also be checked using Output Diagnostic Test Mode (DTM) for airbag ⇒ ⇒ Page 01-87
00946 Interior light -W- Short to B+	◆ Faulty wiring or connectors ◆ Interior light or one of the reading lights are malfunctioning	- Check wiring and connectors using wiring diagram - Replace interior light or malfunctioning reading light

01-331



V.A.G 1551 display	Possible cause	Corrective action
00947 Tailgate/trunk lid remote control switch -E188- Short to Ground	<ul style="list-style-type: none">◆ Faulty wiring or connectors ◆ Tailgate/trunk lid remote control switch -E188- malfunctioning	<ul style="list-style-type: none">- Check wiring and connectors using wiring diagram - Replace tailgate/trunk lid remote control switch -E188-

01-332



V.A.G 1551 display	Possible cause	Corrective action
00949 Motor for tailgate/trunk lid CL lock Undefined switch position	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Lock mechanical components are stiff/partially seized ◆ Tailgate/trunk lid lock/unlock motor malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check lock mechanical components and make serviceable - Replace tailgate/trunk lid lock/unlock motor
00950 Motor for tailgate/trunk lid CL unlock Undefined switch position		
00951 Release for tailgate/trunk lid remote release -J398- (Only USA) Short to B+	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram

01-333



V.A.G 1551 display	Possible cause	Corrective action
00953 Time limit interior light Undefined switch position	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Interior light, reading lights and luggage compartment connections malfunctioning ◆ Interior light malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check wiring and connectors using wiring diagram - Replace interior light
00954 Starter inhibitor relay -J433-1),2) Short to B+	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Starter inhibitor relay -J433- malfunctioning (USA) 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Replace starter inhibitor relay -J433-(USA)

1) Not displayed on scan tool display at present

2) Only vehicles for USA or vehicles without immobilizer

01-334



V.A.G 1551 display	Possible cause	Corrective action
00955 Key 1 Adaptation limit exceeded	<ul style="list-style-type: none"> ◆ Key not matched ◆ Key operated more than 200 times beyond range of system 	- Read Measuring Value Block; display group number 006 ⇒ ⇒ Page 01-367 , display zone 2
00956 Key 2 Adaptation limit exceeded		
00957 Key 3 Adaptation limit exceeded		
00958 Key 4 Adaptation limit exceeded		

01-335



V.A.G 1551 display	Possible cause	Corrective action
01030 CL key button driver's side, locking Implausible signal Short to Ground ¹⁾	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Lock cylinder sticks ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Read Measuring Value Block; Display group number 001 ⇒ ⇒ Page 01-350 , display zone 3 - Check lock cylinder installation
01031 CL key button driver's side, unlocking Implausible signal Short to Ground ¹⁾	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Lock cylinder sticks ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Read Measuring Value Block; Display group number 001 ⇒ ⇒ Page 01-350 , display zone 3 - Check lock cylinder installation

¹⁾ Malfunction recorded if operated for longer than 5 minutes



V.A.G 1551 display	Possible cause	Corrective action
<p>01032 CL key button passenger's side, locking</p> <p>Implausible signal</p> <p>Short to Ground ¹⁾</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Lock cylinder sticks ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Read Measuring Value Block; Display group number 002 ⇒ ⇒ Page 01-351 , display zone 3 - Check lock cylinder installation
<p>01033 CL key button passenger's side, unlocking</p> <p>Implausible signal</p> <p>Short to Ground ¹⁾</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Lock cylinder sticks ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Read Measuring Value Block; Display group number 002 ⇒ ⇒ Page 01-351 , display zone 3 - Check lock cylinder installation

¹⁾ Malfunction recorded if operated for longer than 5 minutes

01-337



V.A.G 1551 display	Possible cause	Corrective action
01038 Central locking thermo protection	<ul style="list-style-type: none">◆ Faulty wiring or connectors◆ Door locks stiff	<ul style="list-style-type: none">- Read Measuring Value Block; Display group number 005 ⇒ ⇒ Page 01-358 , display zone 1
01044 Control module incorrectly coded	<ul style="list-style-type: none">◆ The control module installed does not correspond to the vehicle equipment◆ Control module supplied is not programmed or not completely programmed	<ul style="list-style-type: none">- Replace control module- Inform spare part supplier of the problem

01-338



V.A.G 1551 display	Possible cause	Corrective action
01131 Turn signal activation Undefined switch position	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Fuse S144 faulty 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Perform Output Diagnostic Test Mode (DTM) ⇒ ⇒ Page 01-247 - Check fuses using wiring diagram or replace
01134 Alarm horn -H12- Undefined switch position	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Fuse S111 Malfunctiony ◆ Alarm horn -H12- malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Perform Output Diagnostic Test Mode (DTM) ⇒ ⇒ Page 01-344 - Check fuses using wiring diagram or replace - Replace alarm horn -H12-

01-339



V.A.G 1551 display	Possible cause	Corrective action
01135 Interior monitoring sensors Open circuit Malfunctioning	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Sensors for monitoring interior not installed ◆ Sensors for monitoring interior malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check installation - Replace sensors for monitoring interior
01141 Tailgate unlocking switch - E165- Implausible signal	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Tailgate unlocking switch -E165- is malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Replace tailgate unlocking switch -E165- - Read Measuring Value Block; Display group number 006 ⇒ ⇒ Page 01-359 , display zone 1

01-340



V.A.G 1551 display	Possible cause	Corrective action
01179 Incorrect key programming	<ul style="list-style-type: none"> ◆ Adaptation of keys (function 10) not performed correctly 	<ul style="list-style-type: none"> - See description for matching keys with radio remote control, ⇒ Page 01-372 - Read Measuring Value Block; Display group number 009 ⇒ ⇒ Page 01-366 , display zone 3
01355 Signal; All windows open Short to B+	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Lock operating or lock cylinder mechanical components stiff 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check lock operating components and make serviceable - Replace lock cylinder - Read Measuring Value Block; Display group number 007 ⇒ ⇒ Page 01-362 , display zone 4

01-341



V.A.G 1551 display	Possible cause	Corrective action
01356 Signal; Close all windows and sliding/tilting roof Short to B+	<ul style="list-style-type: none">◆ Faulty wiring or connectors ◆ Lock operating or lock cylinder mechanical components stiff	<ul style="list-style-type: none">- Check wiring and connectors using wiring diagram - Check lock operating components and make serviceable - Replace lock cylinder - Read Measuring Value Block; Display group number 007 ⇒ ⇒ Page 01-362 , display zone 3



V.A.G 1551 display	Possible cause	Corrective action
01362 Close switch for tailgate/trunk lid -F124- ²⁾ Short to Ground ¹⁾	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Lock operating or lock cylinder mechanical components stiff 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check lock operating components and make serviceable - Replace lock cylinder - Read Measuring Value Block; Display group number 006 ⇒ ⇒ Page 01-359 , display zone 3
01365 Lock/Unlock switch/interior lock button Short to Ground ¹⁾	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Driver's interior locking switch is malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Replace driver's interior locking switch

¹⁾ Malfunction recorded if operated for longer than 5 minutes

²⁾ Unclip contact switch on lock cylinder housing (with small lever)

01-343



V.A.G 1551 display	Possible cause	Corrective action
<p>01389 Open switch for tailgate/trunk lid -F124- ²⁾</p> <p style="text-align: right;">Short to Ground ¹⁾</p>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Lock operating or lock cylinder mechanical components stiff 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Check lock operating components and make serviceable - Replace lock cylinder - Read Measuring Value Block; Display group number 006 ⇒ ⇒ Page 01-359 , display zone 3

1) Malfunction recorded if operated for longer than 5 minutes

2) Unclip contact switch on lock cylinder housing (with small lever)



Output Diagnostic Test Mode (DTM)

The components displayed in the Output Diagnostic Test Mode (DTM) can differ depending upon the equipment fitted to the vehicle. For example on vehicles without ATA there will be no step "1" as listed in the table below.

The Output Diagnostic Test Mode (DTM) activates the following components in the stated sequence:

Step	Display in tester	Reaction
	Alarm horn (for anti-theft alarm)	- Horn sounds continuously
	Turn signal lights activation (for anti-theft alarm)	- Activated continuously (lights up cont.)
	Interior light, reading lights	- Interior and reading lights are activated
	Close sliding roof signal	- Sliding roof closes ¹⁾
	"Safe" LED driver's door	- "Safe" LED lights up
	Instrument illumination	- Instrument illumination activated
	END	- Information: End of regular final control test

¹⁾ When performing final control test the "signal close sliding roof", the ignition and S-terminal must be inactive (no key in ignition/starter switch) and one of the front doors must be open.



Special tools, testers and auxiliary items

- ◆ V.A.G 1551 scan tool or vehicle V.A.G 1552 System tester with cable V.A.G 1551/3
- ◆ V.A.G 1594 Adapter set
- ◆ V.A.G 1527 LED test light
- ◆ Electrical wiring diagram

Work sequence

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-307](#) .

Rapid data transfer
Select function XX

HELP



Indicated on display:

- Operate scan tool taking into account the information on the display:
- Input 03 for "Output Diagnostic Test Mode (DTM)" function.
- Switch off ignition and remove ignition key from ignition lock.



Rapid data transfer Q
03 Output Diagnostic Test Mode (DTM)



Indicated on display:

- Confirm entry with the -Q- button.

Output Diagnostic Test Mode (DTM) →



Indicated on display:

Perform individual tests: See table on ⇒
[Page 01-344](#) .

Output Diagnostic Test Mode (DTM) can be terminated by pressing the -C- button.

- Press → button.

If a component does not function:

- Continue Output Diagnostic Test Mode (DTM) to the end.



Read Measuring Value Block

Special tools, testers and auxiliary items

- ◆ V.A.G 1551 Scan tool with V.A.G 1551/3 cable

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-307](#) .

The measured values in the functions Read Measuring Value Block and basic setting are described during the individual component test. This table serves only as an overview.

The measured value block is divided into 10 display group numbers. The assignment of the individual display zones can be taken from the display group overview ⇒ ⇒ [Page 01-349](#) .

Rapid data transfer
Select function XX

HELP



Indicated on display:

- Press buttons -0- and -8- (08 initiates the "Read Measuring Value Block" function).

Rapid data transfer
08 Read Measuring Value Block

Q



Indicated on display:

- Confirm entry with the -Q- button.

01-348



Read Measuring Value Block HELP

Input display group number XX



Indicated on display:

Note:

The display group number 001 is an example, to illustrate the sequence.

- Press buttons -0-, -0- and -1- for "Display group number 1" and confirm entry with -Q- button.

Read Measuring Value Block 1 →

1 2 3 4



Indicated on display: (1 to 4 = Display zones)

Note:

To change to another display group proceed as follows:

Display group	V.A.G 1551	V.A.G 1552
Higher	Press button -3-	Press ↑ button
Lower	Press button -1-	Press ↓ button
Skip	Press button -C-	Press button -C-

- Displayed after pressing -C- button.

Read Measuring Value Block HELP

Input display group number XXX



Indicated on display:

- Now enter the display group number required.



Display group overview

Break down of display content for display group number 001

Display group 001 -Driver's door-							
Read Measuring Value Block 1				→ ◀ Indicated on display			
xxx	xxx	xxx	xxx	◀ Display zones		Specification	
1	2	3	4			Evaluation	
				Central locking feedback, driver's side		Safe not Safe	⇒ ⇒ Page 01-350
				Central locking feedback, driver's side		locked, unlocked	
				Driver's interior locking switch		locked unlocked not operated, implausible	
				Driver's central locking Key switch		Open, close, not operated, implausible	

01-350



Evaluating display group number 001

Display zone	Description	Display	Corrective action
1	Key switch driver's side	Open closed not operated implausible	<ul style="list-style-type: none"> - Visual check of wiring - Check lock mechanism - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Driver's interior locking switch	locked unlocked not operated implausible	
3	Central locking feedback "locked", driver's side	locked unlocked	
4	Central locking feedback "safe", driver's side	safe not safe	



Break down of display content for display group number 002

Display group 002 -Driver's door-						
Read Measuring Value → Block 2				◀ Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	Display zones	Specification	Evaluation
				Central locking feedback, front passenger's side	Safe not Safe	⇒ ⇒ Page 01-352
				Central locking feedback, front passenger's side	locked, unlocked	
				Interior locking switch, front pass. -E198 (USA only)	lock, unlock, not operated, implausible	
				Key switch, front passenger's side	open, closed, not operated, implausible	

01-352



Evaluating display group number 002

Display zone	Description	Display	Corrective action
1	Key switch CL passenger's side	Open closed not operated implausible	<ul style="list-style-type: none"> - Visual check of wiring - Check lock mechanism - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Interior locking switch, front passenger's side -E198- 2)	locked unlocked not operated implausible 1)	
3	Central locking feedback "locked", passenger's side	locked unlocked	
4	Central locking feedback "safe", passenger's side	safe not safe	

01-353



Break down of display content for display group number 003

Display group 003 -Rear doors-						
Read Measuring Value Block 3			→ ◀ Indicated on display			
xxx	xxx	xxx				
1	2	3	4	◀ Display zones	Specification	Evaluation
				Central locking feedback, rear left	safe, not safe	⇒ ⇒ Page 01-354
				Central locking feedback, rear left	locked, unlocked	
				Central locking feedback, rear right	safe, not safe not installed	
				Central locking feedback, rear right	locked, unlocked not installed	

01-354



Evaluating display group number 003

Display zone	Description	Display	Corrective action
1	Central locking feedback, rear right	locked, unlocked not installed	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Central locking feedback, rear right	safe, not safe not installed	
3	Central locking feedback, rear left	locked unlocked not installed	
4	Central locking feedback, rear left	safe not safe not installed	



Break down of display content for display group number 004

Display group 004 -Driver's door-						
Read Measuring Value Block → 4				◀ Indicated on display		
xxx	xxx	xxx		◀ Display zones	Specification	Evaluation
1	2	3	4	Empty ¹⁾		⇒ ⇒ Page 01-356
				Rotary latch switch, rear	door open, door closed not installed	
				Rotary latch switch, front passenger's side	door open, door closed	
				Rotary latch switch, driver's side	door open, door closed	

¹⁾ Empty means in this case: Display zone is blank

01-356



Evaluating display group number 004

Display zone	Description	Display	Corrective action
1	Rotary latch switch, driver's side	door open, door closed	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Rotary latch switch, passenger's side	door open, door closed	
3	Rotary latch switch, rear	door open, door closed not installed	



Break down of display content for display group number 005

Display group 005 -Front passenger's door-							
Read Measuring Value Block 5				Indicated on display			
xxx	xxx	xxx	xxx	Display zones		Specification	
1	2	3	4			Evaluation	
				Interior monitor sensor		yes no not installed	⇒ ⇒ Page 01-358
				Remote control module key button		open, closed, RLR ¹⁾ , Panic ²⁾ (with 0 or 1)	
				Speed signal (Steps: 2 km/h)		mv 0 km/h (steps: 2 km/h)	
				Central locking temperature switch-off		yes, no	

1) Only vehicles for USA, RLR= Rear lid remote release

2) Only vehicles for USA, alarm system and turn signal lights are activated

01-358



Evaluating display group number 005

Display zone	Description	Display	Corrective action
1	Central locking temperature switch-off	yes, no	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Speed signal	mv = km/h (steps: 2km/h)	
3	Remote control module key button	open, closed, RLR ¹⁾ , Panic ²⁾ (with 0 or 1)	
4	Interior monitor sensor	yes no not installed	

¹⁾ Only vehicles for USA, RLR= Rear lid remote release

²⁾ Only vehicles for USA, alarm system and turn signal lights are activated

01-359



Break down of display content for display group number 006

Display group 006 -Front passenger's door-						
Read Measuring Value Block 6				→	◀ Indicated on display	
xxx	xxx	xxx	xxx			
1	2	3	4	◀ Display zones	Specification	Evaluation ⇒ ⇒ Page 01-360
				Ignition	terminal 15 on, terminal 15 off	
				Tailgate Key switch	open, closed, not operated implausible	
				Key number	mv = display 0..65546 (0: Not operated)	
				S-terminal	operated not operated	

01-360



Evaluating display group number 006

Display zone	Description	Display	Corrective action
1	S-terminal	operated not operated	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Key number	mv = 1 to 4 ¹⁾	When operating a "learned" radio wave key, the position of the "learned" key is shown. If the tester displays "0" even when the remote button is pressed, this key must be "re-synchronised" using adaptation (10).
			Continued on next page

¹⁾ A max. of 4 remote keys can be "learned".

01-361



Display zone	Description	Display	Corrective action
2	Key switch	open closed not operated implausible	- Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
3	Ignition	Terminal 15 on Terminal 15 off	



Break down of display content for display group number 007

Display group 007 -Central control module-						
Read Measuring Value Block 7				→ Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	◀ Display zones	Specification	Evaluation
				Signal open all windows	yes, no not installed	⇒ ⇒ Page 01-363
				Signal close all windows and sliding roof ¹⁾	yes, no	
				Trunk lid/tailgate contact switch	open, closed	
				Hood contact switch	open, closed, not installed	

¹⁾ The central control module transmits a switch-off delayed terminal 15 to the sliding roof control module. The sliding/tilting roof can then still be operated from the point when the ignition is switched off until one of the front doors is opened.

01-363



Evaluating display group number 007

Display zone	Description	Display	Corrective action
1	Hood contact switch	open closed, not installed	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Trunk lid/tailgate contact switch	open closed	
3	Signal close all windows and sliding roof	yes no	
4	Signal open all windows	yes, no not installed	



Break down of display content for display group number 008

Display group 008 -Central control module-						
Read Measuring Value Block 8				→ Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	Display zones	Specification	Evaluation
				Empty ¹⁾		⇒ ⇒ Page 01-365
				Interior monitoring switch-off ³⁾	on, off, not installed	
				Rear lid button and rear lid handle ^{2,4)}	not oper. TG hndl op implausible	
Vehicle system voltage terminal 30					Volts	

1) Empty means in this case: Display zone is blank

2) Rear lid remote unlocking button, rear lid handle

3) Interior monitoring switch-off

4) Malfunction recorded if operated for longer than 10 seconds

01-365



Evaluating display group number 008

Display zone	Description	Display	Corrective action
1	Vehicle system voltage terminal 30	on, off, not installed	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	RLR button and RL handle ^{2,4)}	not oper., TG hndl op, implausible	
3	Interior monitoring switch-off ³⁾	Volts	

²⁾ Rear lid remote unlocking button, rear lid handle

³⁾ Interior monitoring switch-off

⁴⁾ Malfunction recorded if operated for longer than 10 seconds



Break down of display content for display group number 009

Display group 009 -Central control module-						
Read Measuring Value Block 9			→ ◀ Indicated on display			
xxx	xxx	xxx	◀ Display zones		Specification	Evaluation
1	2	3	Empty ¹⁾			⇒ ⇒ Page 01-367
Algorithm					OK. not OK. n. meas. val ²⁾	
Code within effective range					OK. not OK. n. meas. val ²⁾	
Permanent code known					OK. not OK. n. meas. val ²⁾	

¹⁾ Empty means in this case: Display zone is blank

²⁾ If the remote control button is operated several times the third display - n. meas. val (no measured value) - will change to "OK."



Evaluating display group number 009

Display zone	Description	Display	Corrective action
1	Permanent code known	OK. not OK. no measured value ²⁾ (Key not being operated)	If not OK.: - Key code not within effective range. "Re-synchronize" radio wave remote control via function 10 (adaptation) ⇒ ⇒ Page 01-372 . For no measured value: - Battery in Key is discharged. Change battery. - Radio wave remote control malfunctioning, replace key.
2	Code within effective range		
3	Algorithm		

²⁾ If the remote control button is operated several times the third display - n. meas. val (no measured value) - will change to "OK."



Break down of display content for display group number 010

Display group 010 -Central control module-						
Read Measuring Value Block 10 xxx xxx xxx xxx				◀ Indicated on display		
1	2	3	4	Display zones	Specification	Evaluation
				4. Alarm source (4th last)	mv = Display	⇒ ⇒ Page 01-369
				3. Alarm source (3rd last)		
				2. Alarm source (2nd last)		
				1. Alarm source (last)		

01-369



Evaluating display group number 010

Display zone	Description	Display	Corrective action
1	Alarm source (last)	Display 1 to 65535	Only the last 4 ATA ¹⁾ activations are shown! For example "64" = Front passenger rotary latch switch (see table below for possible sources of alarm)
2	Alarm source (2nd last)		
3	Alarm source (3rd last)		
4	Alarm source (4th last)		

¹⁾ Anti-theft alarm

Possible sources of alarm	Display
Interior monitoring	2
Engine hood contact switch	4
Ignition	8
Rear lid contact switch	16
Rear right and left rotary latch switch	32
Front passenger rotary latch switch	64
Driver's rotary latch switch	128
No alarm	255



Break down of display content for display group number 011

Display group 011 -Central control module-						
Read Measuring Value Block 11				→ ◀ Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	◀ Display zones	Specification	Evaluation
				Empty ¹⁾		⇒ ⇒ Page 01-371
				Rear first detent ²⁾	open, closed, not installed	
				Automatic lock / unlock switch	not relevant	
				Immobilizer key recognition	yes, no, not installed	

1) Empty means in this case: Display zone is blank

2) Lock rotary latch must be engaged in first detent

01-371



Evaluating display group number 011

Display zone	Description	Display	Corrective action
1	Immobilizer key recognition	yes, no, not installed	<ul style="list-style-type: none"> - Visual check of wiring - Watch display and check connectors of appropriate current circuit for correct engagement and tight fit - If the display does not change when checking connectors, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Automatic lock/unlock switch	Not relevant	
3	Rear, first detent ¹⁾	open, closed, not installed	

²⁾ Lock rotary latch must be engaged in first detent



Adaptation - function 10

Matching ignition keys to radio wave remote control

Note:

- ◆ *If new or additional ignition keys are required they must be matched to the immobilizer and convenience system control electronics.*
- ◆ *The matching procedure must always be carried out for all the ignition keys, including the existing ones.*
- ◆ *The number of keys already matched will be displayed when the adaptation (matching) function is selected.*
- ◆ *With the introduction of this generation of convenience system it is possible to program additional functions. The functions and the programming are described ⇒ ⇒ [Page 01-292](#) .*
- ◆ *The matching can be interrupted with the "C" button of the V.A.G 1551 .*

CAUTION!

The V.A.G 1551 dealership number (workshop code) will be stored in immobilizer control module when matching ignition keys.



Prerequisites

- ◆ All ignition keys available. If no old ignition key is available see "Lost key procedure",

⇒ [Repair Manual, Electrical Equipment On Board Diagnostic \(OBD\), Repair Group 01; Matching ignition keys](#)

- ◆ Key fob with covered secret number is available, if not see "Establishing secret number",

⇒ [Repair Manual, Electrical Equipment On Board Diagnostic \(OBD\), Repair Group 01; Matching ignition keys](#)

- Insert correct profile ignition key in the ignition lock.
- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-96](#) .

The adaptation shown here is only an example.

Rapid data transfer
Select function XX

HELP



Indicated on display:

- Press buttons -1- and -0- (10 selects function "Adaptation").

Rapid data transfer
10 - Adaptation

Q



Indicated on display:

- Confirm entry with the -Q- button.

Adaptation
Enter channel number XX



Indicated on display:

- Press buttons -0- and -0- (all keys are erased with channel number 00).

01-374



- Confirm entry with the -Q- button.

Note:

It is not possible to match a new or additional key(s) without erasing existing learned/matched key(s).

Adaptation	Q	◀	Indicated on display:
Erase learned values			- Confirm entry with the -Q- button.
Adaptation	→	◀	Indicated on display:
Learned values are erased			- Press → button.
Rapid data transfer	HELP	◀	Indicated on display:
Select function XX			- Press buttons -1- and -0- (10 selects function "Adaptation").
Rapid data transfer	Q	◀	Indicated on display:
10 - Adaptation			- Confirm entry with the -Q- button.
Adaptation		◀	Indicated on display:
Enter channel number XX			- Press buttons -0- and -1- (all keys are "learned" with channel number 01).
Adaptation	Q	◀	Indicated on display:
Enter channel number 01			- Confirm entry with the -Q- button.

01-375



<p>Channel 1.....Adaptation 1 → Key 1 < -1 3-></p>	<p>←</p>	<p>Indicated on display:</p> <p>The top line displays number of keys to be "learned" (standard =1). Select number of keys with buttons 1 and 3.</p> <p>- Press → button.</p>
<p>Channel 1.....Adaptation 1 → Enter matching value XXXXX</p>	<p>←</p>	<p>Indicated on display:</p> <p>- Press the -0- button four times and then enter the number of all ignition keys to be matched, including the existing key, (e.g. 00003); max. possible Qty. 4.</p> <p>- Press → button.</p>
<p>Channel 1 Adaptation 3 Q Key 3 < -1 3-></p>	<p>←</p>	<p>Indicated on display: Number of radio wave key to be "learned".</p> <p>- Confirm entry with the -Q- button.</p>
<p>Channel 1 Adaptation 3 Q Store amended value?</p>	<p>←</p>	<p>Indicated on display:</p> <p>- Confirm entry with the -Q- button.</p>
<p>Channel 1 Adaptation 1 → Amended value is stored</p>	<p>←</p>	<p>Indicated on display:</p> <p>- Press → button.</p>
<p>Rapid data transfer HELP Select function XX</p>	<p>←</p>	<p>Indicated on display:</p>

01-376



- A button must be pressed once on each of the radio wave keys to be "learned" (in example above, 3 keys).
- Switch off ignition and remove ignition key.
- Perform functional check (e.g. 3) of radio wave keys.

Note:

- ◆ *All 3 keys (see example) can be "learned" in one matching sequence.*
- ◆ *15 seconds must not be exceeded when matching all ignition keys (pressing a button).*
- ◆ *A successful adaptation can be determined via Read Measuring Value Block, function 08, display group number 013, ⇒ [Page 01-277](#) . When operation the radio wave unit both of first measurement values must have the status OK. Simultaneously the last measurement value will show the positional number of the key (i.e. first, second, third, fourth key).*
- ◆ *If the remote control button is operated several times the third display -no measured value- changes to "OK".*

01-377



The matching of ignition keys is automatically terminated when:

- ◆ Number of keys to be matched is reached.
- ◆ A button of one of the keys to be "learned" is pressed frequently.
- ◆ Permissible matching period of 15 seconds is exceeded (malfunction is stored).

- Select function 02 "Check DTC memory". If there is no malfunction stored, the matching of the keys has been successfully completed.
- Press buttons -0- and -6- to end the output.

Rapid data transfer

Q



Indicated on display:

06 End output

- Confirm entry with the -Q- button.

Rapid data transfer

HELP



Indicated on display:

Enter address word XX

- Switch off ignition.
- Disconnect connector to V.A.G 1551 scan tool.

01-378



The various functions listed in the table can be called up and adapted by selecting the channel numbers 03 to 10.

Radio wave remote control functional variants

Channel number	Significance	Measured value
03	Auto lock/unlock: Vehicles will be locked when a speed of 15 km/h is reached	on=1 off= 0
04	Auto lock/unlock: Vehicles will be unlocked when the ignition key is withdrawn from the ignition lock	on=1 off= 0
05	IM switch-off: Interior monitoring is activated or deactivated by operating central locking closed twice	on=1 off= 0
06	Horn sounds when unlocking: Confirmation signal when unlocking ¹⁾	on=1 off= 0
07	Horn sounds when locking: Confirmation signal when locking ¹⁾	on=1 off= 0
08	Turn signals flash when unlocking: Unlocking is confirmed by turn signals flashing twice	on=1 off= 0
09	Horn sounds when locking: Locking is confirmed by turn signals flashing once	on=1 off= 0
10	Setting for alarm horn: Programming the horn operation when the alarm is triggered appropriate to the legislation of the countries	1= Rest of Europe 2= Germany 3= Great Britain

¹⁾ No longer allowed according to German legislation.

01-379



The matching shown here is only an example.

Rapid data transfer Select function XX	HELP	◀	Indicated on display: - Press buttons -1- and -0- (10 selects function "Adaptation").
Rapid data transfer 10 - Adaptation	Q	◀	Indicated on display: - Confirm entry with the -Q- button.
Adaptation Enter channel number XX		◀	Indicated on display: - Press buttons -0- and -8- (channel number 08 switches the turn signals on or off when unlocking).
Channel 8 Adaptation 1 Unlock Flashing on < -1 3->	→	◀	Indicated on display: - Press → button.
Channel 8.....Adaptation 1 Enter adaptation value XXXXX	→	◀	Indicated on display: - Press → button. - Press button -0- five times (e.g. 00000).
Channel 8.....Adaptation 0 Enter adaptation value 00000	Q	◀	Indicated on display: - Confirm entry with the -Q- button.

01-380

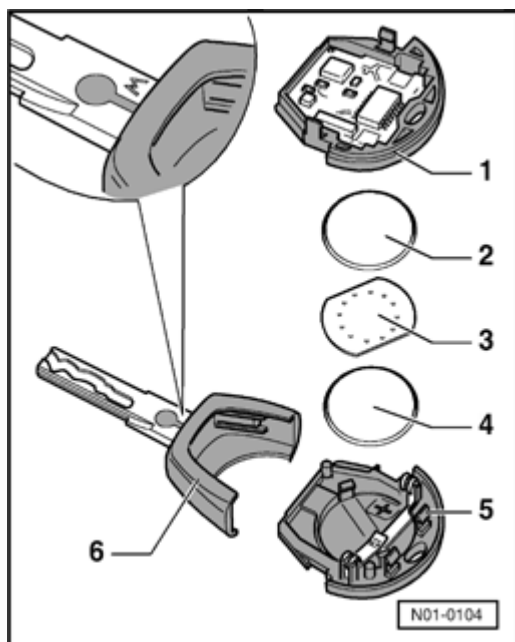


Channel 8 Adaptation 0 Unlock Flashing off < -1 3->	Q	◀	Indicated on display: - Confirm entry with the -Q- button.
Channel 8 Adaptation 0 Store amended value?	Q	◀	Indicated on display: - Confirm entry with the -Q- button.
Channel 8 Adaptation 0 Amended value is stored	→	◀	Indicated on display: - Press → button.
Rapid data transfer Select function XX	HELP	◀	Indicated on display: - Press buttons -0- and -6- to end the output.
Rapid data transfer 06 End output	Q	◀	Indicated on display: - Confirm entry with the -Q- button.
Rapid data transfer Enter address word XX	HELP	◀	Indicated on display: - Switch off ignition. - Disconnect connector to V.A.G 1551 scan tool.

01-381



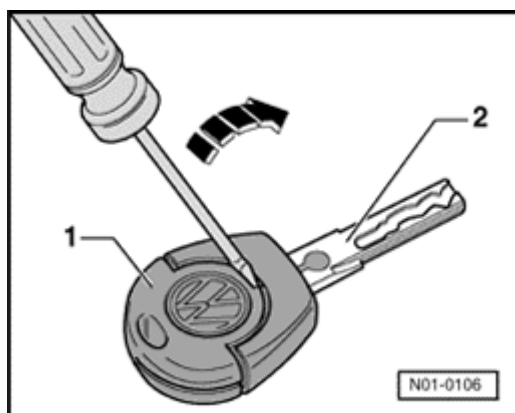
Batteries for the main key with radio wave remote control, removing and installing



- 1 - Transmitter unit - upper part (turned-over)
- 2 - Key battery
- 3 - Contact plate
- 4 - Key battery
- 5 - Transmitter unit - lower part
- 6 - Main key with variable code transponder

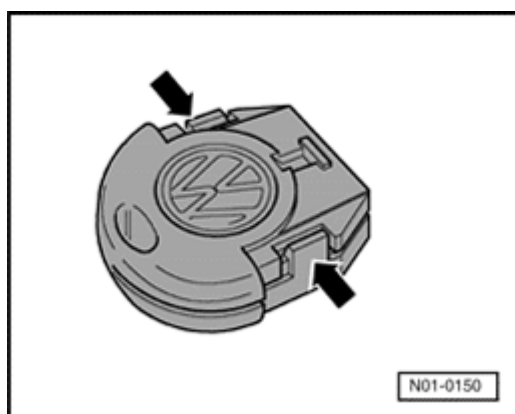
To be able to differentiate between a key with transponder and a key with variable code transponder the main key has a "w" stamped on it.

01-382



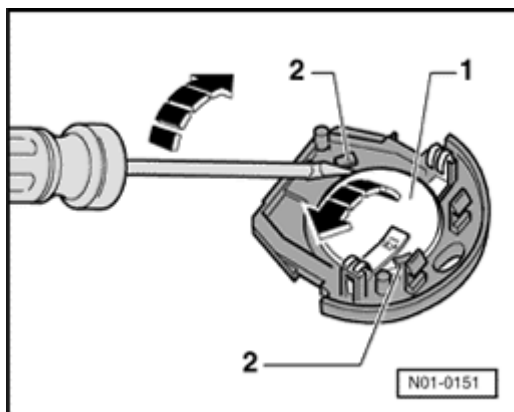
Removing

- ✦ - Insert a screwdriver in the slot between the transmitter unit -1- and the main key -2-.
- Move the screwdriver in direction of arrow and unclip the transmitter unit from the main key.

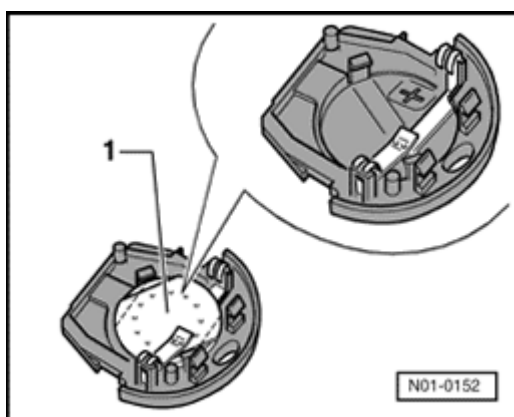


- ✦ - Lever the transmitter unit apart on the two locating lugs (arrows).

01-383



- Unclip upper battery -1- from the retainers -2- with a screwdriver in direction of arrow.



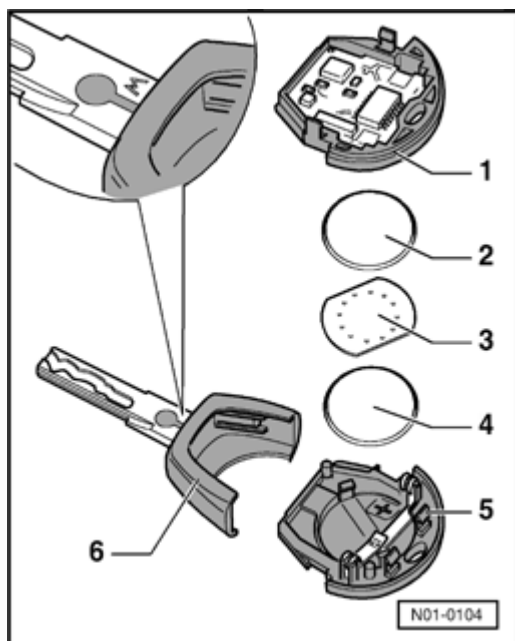
- The contact plate -1- has two straight edges. When these edges are turned towards the retainers the contact plate can be removed.
- The contact plate can also be unclipped with a screwdriver.
- Now unclip the lower battery from the retainers with a screwdriver.

01-384



Installing

Note the polarity and correct position when installing the batteries.



- Place the battery -4- with the positive terminal downwards into the sensor unit (positive terminal is marked on housing).
- Now place the contact plate -3- on the battery -4-.
- Place battery -2- with the positive terminal downwards onto the contact plate and secure.
- Place transmitter unit -1- and transmitter unit -5- halves together and clip to create one remote transmitter assembly.
- Then engage the transmitter unit with the main key.

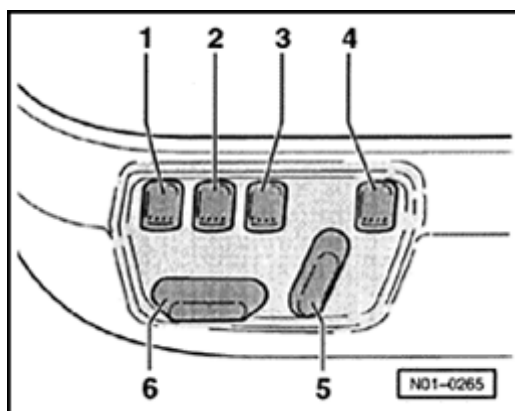
01-385



Driver's side seat adjustment, On Board Diagnostic (OBD)

Seat adjustment, functional description

The 8-way seat is equipped with a seat and mirror memory function.



With this system individual seat and mirror adjustments can be stored in the memory. Each of the memory buttons -1-, -2-, -3- can be used to store the individual settings for one person.

The seat and mirrors will move automatically into the required position by pressing the appropriate button when there is a change of driver.

In the driver's seat adjustment, the position of the exterior mirrors (left and right) when driving forward and the position of the right exterior mirror for reversing can be stored and recalled for each memory button -1-, -2-, -3-.

The adjustments stored on a memory button can also be called up using the key for the radio wave remote control.

The memory system can be turned off at any time using the red switch -4- (MEM OFF). The seat and the exterior mirrors can then only be set manually with switches -5- and -6-.

01-386



On Board Diagnostic (OBD), functional description

It is an independent system and has the On Board Diagnostic (OBD) address word 36 "Seat adjustment driver's side".

The seat adjustment control module -J136- is located under the driver's seat and is connected to the convenience system via the CAN data bus.

It is equipped with a DTC memory. The On Board Diagnostic (OBD) connection is located under the driver's knee bar to left of the steering wheel.

The control module detects malfunctions in the system and stores them in a permanent memory.

To commence troubleshooting, initiate self-diagnosis and retrieve the stored information with the V.A.G 1551 scan tool.

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

The malfunction information displayed is used to refer to a DTC table with notes on the possible causes for directed repair measures.

Malfunctions which can be attributed to a temporary open circuit in the wiring or a loose contact, will also be stored. These malfunctions will be displayed as sporadic DTCs "SP".

The individual operating functions are described in the following description.

01-387



Memory system, initializing

Note:

- ◆ *All data stored for the seat and mirror settings will be lost when the vehicle battery is disconnected.*
- ◆ *This data will be retained in future control modules even after the battery has been disconnected.*
- ◆ *Each new setting stored on the same button will erase the previous data.*
- ◆ *It is not possible to store settings on the memory buttons if the red switch is switched-off (switch protrudes).*
- ◆ *The battery voltage must not be below 10.5 V. Otherwise the system detects low voltage and will store a malfunction in the DTC memory.*

The following test steps must be performed for the initialization:

- Open driver's door.
- Switch on ignition.
- Then move the seat backrest forwards as far as stop.

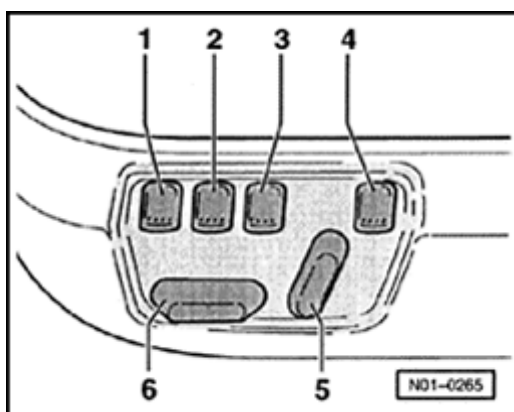
This position will be recorded for reference when the stop limit switch-off occurs.

01-388



Seat and mirror settings for normal driving, storing

- Switch on ignition.
- Set the seat.
- Set both exterior mirrors.
- Now press one of the memory buttons (-1- to -3-) and hold it depressed for about 3 seconds until an acoustic signal confirms that the settings are stored in the memory.



The settings are now stored on the selected memory button.

The stored settings can be recalled via the memory buttons (-1- to -3-) as well as via the radio wave remote control.

Allocating a seat adjustment to a radio wave remote control button is described at the end.

Note:

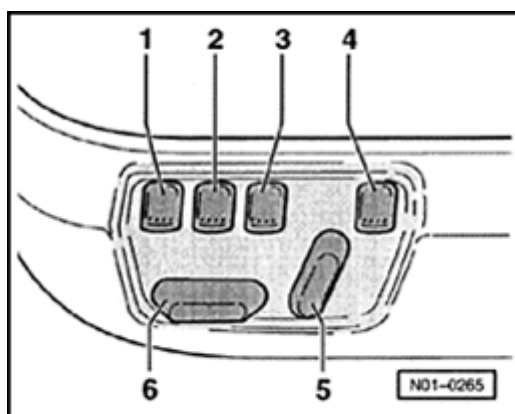
- ◆ *When the vehicle battery is disconnected all the data stored for the seat and mirror settings are lost.*
- ◆ *For future versions of the control module this data will be retained even when the battery is disconnected.*
- ◆ *Each time settings are stored on a button the previous data will be erased.*



Mirror setting for reversing, storing

This function cannot be performed until the seat/mirror settings for driving forwards have been stored ⇒ ⇒ [Page 01-388](#) .

- Switch on ignition.
- Set mirror adjustment switch to right mirror.
- Select reverse gear.
- Set the mirror to the desired position.
- Now press one of the memory buttons (-1- to -3-) and hold it depressed for about 3 seconds until an acoustic signal confirms that the settings are stored in the memory.



The settings are now stored on the selected memory button.

The stored settings can be recalled via the memory buttons (-1- to -3-) as well as via the radio wave remote control.

Allocating a seat adjustment to a radio wave remote control button is described at the end.

01-390

**Note:**

- ◆ *When the vehicle battery is disconnected all the data stored for the seat and mirror settings are lost.*
- ◆ *For future versions of the control module this data will be retained even when the battery is disconnected.*
- ◆ *Each time settings are stored on a button the previous data will be erased.*
- ◆ *As soon as reverse gear is engaged the right exterior mirror moves into the currently stored position or into the previous set position. This procedure will be interrupted if the mirror is manually adjusted to a new position.*
- ◆ *As soon as the reverse gear is disengaged the right exterior mirror will move back to the position stored for normal driving.*
- ◆ *Every time the seat and mirror adjustment for normal driving is changed, the individual setting for the right exterior mirror for reversing must also be reset, otherwise the previously set position is active.*

01-391



Allocating radio wave remote control key to memory buttons

After storing the seat and mirror settings ⇒ ⇒ [Page 01-388](#) there is a 10 second period where the radio wave remote control key can be allocated to the appropriate memory button.

The number of the radio wave remote control key will be transferred from the convenience system central control module via the CAN bus to the memory control module.

- Pull the radio wave remote control key out of the ignition lock.
- Press the open button of the radio wave remote control key and hold it depressed for at least 1 second until an acoustic signal confirms the allocation.

The settings are stored under the selected memory button.

01-392

**Note:**

- ◆ *If the remote control key was previously allocated to a different memory button, the old allocation will be erased.*
- ◆ *If the radio wave remote control key is allocated to a memory button to which another button is already allocated, the old allocation will also in this case be erased.*
- ◆ *The allocation of a radio wave remote control key to a memory button will be retained even when new seat and mirror settings are stored on this button.*
- ◆ *When the vehicle battery is disconnected all allocations for radio wave remote control keys to the memory buttons will be erased.*
- ◆ *For future versions of the control module this data will be retained even when the battery is disconnected.*

01-393



Seat and mirror settings for normal driving, activating

The settings stored can be activated via the memory buttons as well as by the radio wave remote control.

Activating via the memory buttons

For safety reasons the seat and mirror settings can only be activated with the ignition switched off.

There are two possibilities for activating the stored settings:

One touch automatic memory:

- With driver's door open briefly press the desired memory button. The seat and exterior mirrors move automatically to the stored positions.

Push and hold memory:

- With the driver's door opened or closed press the desired memory button until the seat and exterior mirrors have moved into the stored positions.

Activating via the radio wave remote control

For safety reasons the seat and mirror settings can only be activated with the ignition switched off.

- Briefly press the opening button of the radio wave remote control and then open the driver's door. The seat and exterior mirrors move automatically into the stored position.

01-394



Mirror setting for reversing, activating

- Set mirror change-over switch to the right exterior mirror.
- Engage reverse gear. The right exterior mirror moves automatically into the stored position.

Note:

As soon as the reverse gear is disengaged the right exterior mirror moves back to the position stored for normal driving.



Seat adjustment, initiating On Board Diagnostic (OBD)

Test prerequisites:

- ◆ Voltage supply and fuses for the respective system OK.
- ◆ To initiate the On Board Diagnostic (OBD) the ignition must be switched on "Terminal 15 on".

Note:

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

Electrical Wiring Diagrams, Troubleshooting & Component Locations

- ◆ *Additional operating information can be printed out depending on the program by pressing the HELP button of V.A.G 1551 .*
- ◆ *The → button is used for advancing the program sequence.*
- ◆ *The PRINT button is used for switching on the printer (warning lamp in button lights up).*
- ◆ Connecting scan tool ⇒ ⇒ [Page 01-3](#)

- Switch on ignition.
- Switch on printer with Print button (warning lamp in button lights up).

01-396



			- Press button -1- for "Rapid data transfer" mode.
Rapid data transfer Enter address word XX	HELP	◀	Indicated on display: Address word for the seat adjustment: 36
Rapid data transfer Enter address word XX	HELP	◀	Indicated on display: - Press buttons -3- and -6-.
Rapid data transfer 36 Seat adjustment	Q	◀	Indicated on display after entering the address word 36: - Confirm entry with the -Q- button. and then the following appears in the display:
Rapid data transfer Tester sends the address word 36		◀	Indicated on display:
3B1959760XXSeat adjustmentFS 0001 →		◀	The control module identification will be shown on the V.A.G 1551 scan tool display, e.g.: - Press → button.
Rapid data transfer Select function XX	HELP	◀	Indicated on display:



Selectable functions, overview

	page
01 - Check Control Module Version	⇒ Page 01-398
02 - Check DTC Memory	⇒ Page 01-401
05 - Erase DTC memory	⇒ Page 01-404
06 - End Output	⇒ Page 01-406
08 - Read Measuring Value Block	⇒ Page 01-423

Note:

- ◆ *A list of possible functions is printed out after pressing the HELP button.*
- ◆ *Do not select further functions, which can be printed out after pressing the HELP button.*
- ◆ *After the function is completed the V.A.G 1551 returns to the following start position:*

Rapid data transfer
Select function XX

HELP



Indicated on display:

01-398



Check Control Module Version

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-395](#) .
- Switch on ignition.
- Press button -1- for "Rapid data transfer" mode.
- Switch on printer with Print button (warning lamp in button lights up).
- Press buttons -0- and -1-.

Rapid data transfer

Q



Indicated on display:

01-Check Control Module Version

- Confirm entry with the -Q- button.

3B1959760XSeat adjustmentFS 0001 →



The control module identification will be shown on the V.A.G 1551 scan tool display, e.g.:

01-399



Breakdown of the display:

- ◆ Part No. of control module, System designation (XX seat adjustment DS 0001)

- Press → button.

Rapid data transfer HELP ↗
Select function XX

Indicated on display:

Note:

Rapid data transfer HELP ↗
control module does not answer!

- ◆ *If one of the malfunction messages opposite appears in the display, the possible causes of the malfunction can be printed out with the HELP button.*

Rapid data transfer HELP ↗
K wire not switching to B+!

- ◆ *Ignition must be switched on.*

Rapid data transfer → ↗
No signal from control module!

- ◆ *Malfunctions have occurred at the start of or during the program (external interference?).*

Rapid data transfer → ↗
Fault in communication build up

- ◆ *Check diagnosis wires as well as voltage supply and Ground connection.*

01-400



- Press buttons -0- and -6- to end the output.

Rapid data transfer Q
06 End output



Indicated on display:

- Confirm entry with the -Q- button.

Rapid data transfer HELP
Enter address word XX



Indicated on display:

- Switch off ignition.
- Disconnect connector to V.A.G 1551 scan tool.

01-401



Check DTC Memory

Note:

The vehicle V.A.G 1552 System tester can be used instead of the V.A.G 1551 scan tool, however a print-out is not possible.

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-395](#) .
- Switch on printer with Print button (warning lamp in button lights up).

Rapid data transfer
Select function XX

HELP



Indicated on display:

- Press buttons -0- and -2- (the function "Check DTC memory" is entered with 02).

Rapid data transfer
02 - Check DTC memory

Q



Indicated on display:

- Press "Print" button
- Confirm entry with the -Q- button.

X DTCs recognized!



The number of stored malfunctions appears in the display.

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

**Note:**

If a DTC is recognized:

◆ 1 . **Repair malfunction**

◆ 2. *Erase DTC memory (function 05).*

◆ 3. *Check DTC memory again (function 02).*

- The DTCs printed out can be repaired with aid of DTC table ⇒ ⇒ [Page 01-407](#) .
- The function "Read Measuring Value Block" ⇒ ⇒ [Page 01-423](#) and Display group overview ⇒ ⇒ [Page 01-425](#) are additional aids.

The measured value block is divided into 6 display group numbers. The assignment of the individual display zones can be taken from the display group overview page ⇒ ⇒ [Page 01-425](#) .

No DTC recognized!



If "No DTC recognized" is displayed the program will return to the initial position after pressing the → button.

Rapid data transfer

HELP



Indicated on display:

Select function XX

If something else is displayed:

Scan tool operating instructions

01-403



- Press buttons -0- and -6- to end the output.

Rapid data transfer Q
06 End output



Indicated on display:

- Confirm entry with the -Q- button.

Rapid data transfer HELP
Enter address word XX



Indicated on display:

- Switch off ignition.
- Disconnect connector to V.A.G 1551 scan tool.

01-404



Erase DTC memory

Note:

The vehicle V.A.G 1552 System tester can be used instead of the V.A.G 1551 scan tool, however a print-out is not possible.

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-395](#) .

Prerequisites:

- ◆ DTCs are repaired
- ◆ Functional check has been carried out
- ◆ DTC memory checked again

Rapid data transfer
Select function XX

HELP



Indicated on display:

- Press buttons -0- and -5- (the function "Erase DTC memory" is entered with 05).

Rapid data transfer
05 Erase DTC memory

Q



Indicated on display:

- Confirm entry with the -Q- button.

Rapid data transfer
DTC memory is erased!

→



Indicated on display:

- Press → button.

01-405



Rapid data transfer

HELP



Indicated on display:

Select function XX

Note:

WARNING!



DTC memory was not checked

◆ *If this appears in the display, the test sequence is faulty.*

◆ *Adhere strictly to test sequence; first of all check DTC memory, then erase memory.*

- Press buttons -0- and -6- to end the output.

Rapid data transfer

Q



Indicated on display:

06 End output

- Confirm entry with the -Q- button.

Rapid data transfer

HELP



Indicated on display:

Enter address word XX

- Switch off ignition.

- Disconnect connector to V.A.G 1551 scan tool.

01-406



End Output

- Press buttons -0- and -6- to end the output.

Rapid data transfer Q
06 End output



Indicated on display:

- Confirm entry with the -Q- button.

Rapid data transfer HELP
Enter address word XX



Indicated on display:

- Switch off ignition.
- Disconnect connector to V.A.G 1551 scan tool.

01-407



DTC table

Note:

- ◆ *The DTC table is listed according to the 5 digit code on the left.*
- ◆ *Explanation of the malfunction types (e.g. "open circuit/short circuit to Ground"):*

Scan tool operating instructions

- ◆ *Before replacing components indicated as malfunctioning, check the wiring and connectors to these components as well as the Ground connections using wiring diagram. This is particularly relevant if malfunctions are output as "occurring sporadically" (SP).*
- ◆ *The malfunctions displayed can be localized using the test table.*
- ◆ *This malfunction "no communication" can also appear with the door control modules. This has no influence on the function of the convenience system and is therefore of no consequence. Erase DTC memory.*

00668 049

Vehicle system voltage terminal 30

Signal too high



Scan tool print out: The number 049 (e.g.) shown here in bold is not relevant.

01-408



V.A.G 1551 display	Possible cause	Corrective action
00000 No DTC recognized	If "No DTC recognized" appears after carrying out repairs On Board Diagnostic (OBD) is ended	
00668 Vehicle voltage terminal 30 Signal too small Signal too high	<ul style="list-style-type: none"> ◆ Battery discharged ◆ Faulty wiring or connectors ◆ Voltage regulator -C1- malfunctioning ◆ Alternator -C- malfunctioning 	<ul style="list-style-type: none"> - Charge battery - Check wiring and connectors using wiring diagram - Replace Voltage regulator -C1- - Replace Alternator -C-
00994 Sender for driver's seat front height adjustment -G215- Short to Ground Open circuit/short to B+	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram

01-409



V.A.G 1551 display	Possible cause	Corrective action
00995 Sender for driver's seat rear height adjustment -G216- <div style="text-align: right;">Short to Ground</div> <div style="text-align: right;">Open circuit/short to B+</div>	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram
00998 Motor for driver's seat backrest adjustment -V45-	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Motor malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Replace motor

01-410



V.A.G 1551 display	Possible cause	Corrective action
00999 Motor for driver's seat front height adjustment -V29-	<ul style="list-style-type: none">◆ Faulty wiring or connectors◆ Motor malfunctioning	<ul style="list-style-type: none">- Check wiring and connectors using wiring diagram- Replace motor
01000 Motor for driver's seat rear height adjustment -V30-	<ul style="list-style-type: none">◆ Faulty wiring or connectors◆ Motor malfunctioning	<ul style="list-style-type: none">- Check wiring and connectors using wiring diagram- Replace motor

01-411



V.A.G 1551 display	Possible cause	Corrective action
<p>01002 Up button for driver's seat front height adjustment -E208-</p> <p style="text-align: right;">Short to Ground</p>	<ul style="list-style-type: none"> ◆ Button malfunctioning ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Replace button ¹⁾ - Check wiring and connectors using wiring diagram
<p>01003 Down button for driver's seat front height adjustment -E209-</p> <p style="text-align: right;">Short to Ground</p>	<ul style="list-style-type: none"> ◆ Button malfunctioning ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Replace button ¹⁾ - Check wiring and connectors using wiring diagram

¹⁾ The button is a component part of the operating unit and can only be replaced as a complete unit.

01-412



V.A.G 1551 display	Possible cause	Corrective action
01004 Up button for driver's seat rear height adjustment -E210- <div style="text-align: right;">Short to Ground</div>	<ul style="list-style-type: none"> ◆ Button malfunctioning ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Replace button ¹⁾ - Check wiring and connectors using wiring diagram
01005 Down button for driver's seat rear height adjustment -E211- <div style="text-align: right;">Short to Ground</div>	<ul style="list-style-type: none"> ◆ Button malfunctioning ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Replace button ¹⁾ - Check wiring and connectors using wiring diagram

¹⁾ The button is a component part of the operating unit and can only be replaced as a complete unit.

01-413



V.A.G 1551 display	Possible cause	Corrective action
01006 Forward button for driver's seat fore and aft adjustment -E212- Short to Ground	<ul style="list-style-type: none"> ◆ Button malfunctioning ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Replace button ¹⁾ - Check wiring and connectors using wiring diagram
01007 Rearward button for driver's seat fore and aft adjustment -E213- Short to Ground	<ul style="list-style-type: none"> ◆ Button malfunctioning ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Replace button ¹⁾ - Check wiring and connectors using wiring diagram

¹⁾ The button is a component part of the operating unit and can only be replaced as a complete unit.

01-414



V.A.G 1551 display	Possible cause	Corrective action
01008 Note: Emergency switch operated! (MEM OFF switch not in detent -E190-)	<ul style="list-style-type: none"> ◆ No memory operation 	- Push in MEM OFF switch
01009 Sensor for driver's seat fore and aft adjustment -G218- <div style="text-align: right; margin-right: 50px;"> Short to Ground Open circuit/short to B+ </div>	<ul style="list-style-type: none"> ◆ Sensor malfunctioning ◆ Faulty wiring or connectors ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Replace sensor ²⁾ - Check wiring and connectors using wiring diagram

²⁾ The sensor is a component part of the fore and aft adjustment motor and can only be replaced as a complete unit.

01-415



V.A.G 1551 display	Possible cause	Corrective action
01010 Driver's seat backrest sensor -G219- Open circuit/short to B+	<ul style="list-style-type: none"> ◆ Sender malfunctioning ◆ Faulty wiring or connectors ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Replace sensor ²⁾ - Check wiring and connectors using wiring diagram
01173 Motor for driver's seat fore and aft adjustment -V28-	<ul style="list-style-type: none"> ◆ Faulty wiring or connectors ◆ Motor malfunctioning 	<ul style="list-style-type: none"> - Check wiring and connectors using wiring diagram - Replace motor

²⁾ The sensor is a component part of the fore and aft adjustment motor and can only be replaced as a complete unit.

01-417



V.A.G 1551 display	Possible cause	Corrective action
01329 Convenience system data BUS in emergency mode	◆ Faulty wiring or connectors	<ul style="list-style-type: none">- Check wiring and connectors using wiring diagram <p>Wiring OK., then:</p> <ul style="list-style-type: none">- Disconnect all door main connectors and reconnect one after the other while observing measured value block- Replace the control module that has blocked the bus <p>Note: New malfunctions will be stored which can be erased</p> <ul style="list-style-type: none">- Read Measuring Value Block; Display group number 006 ⇒ ⇒ Page 01-436 , display zone 1

01-418



V.A.G 1551 display	Possible cause	Corrective action
<p>01330 Central control module for convenience system</p> <p style="padding-left: 40px;">Malfunctioning</p> <p style="padding-left: 40px;">Voltage supply too high</p> <p style="padding-left: 40px;">Voltage supply too low</p>	<ul style="list-style-type: none"> ◆ Central control module for convenience system malfunctioning ◆ Voltage regulator -C1- malfunctioning ◆ Alternator -C- malfunctioning ◆ Battery -A- malfunctioning or discharged 	<ul style="list-style-type: none"> - Replace convenience system central control module - Check wiring and connectors using wiring diagram - Read Measuring Value Block; Display group number 014 ⇒ ⇒ Page 01-279 , display zone 1

01-419



V.A.G 1551 display	Possible cause	Corrective action
<p>01331</p> <p>Door control module driver's side -J386-</p> <p>Malfunctioning</p> <p>No communication</p> <p>Voltage supply too high</p> <p>Voltage supply too low</p>	<ul style="list-style-type: none"> ◆ Door control module, driver's side -J386- malfunctioning ◆ Faulty wiring or connectors ◆ Battery -A- malfunctioning or discharged ◆ Voltage regulator - C1- malfunctioning ◆ Alternator -C- malfunctioning ◆ Battery -A- malfunctioning or discharged 	<ul style="list-style-type: none"> - Replace door control module, driver's side -J386- - Check wiring and connectors using wiring diagram - The system, even with the malfunction entry, is OK. - Erase DTC memory - Perform functional check - Using Read Measuring Value Block; display group number 012 ⇒ ⇒ Page 01-274 , display zone 2, a check can be made to see if the door control module is installed or not. - Check wiring and connectors using wiring diagram - Read Measuring Value Block; Display group number 014 ⇒ ⇒ Page 01-279 , display zone 1

01-420



V.A.G 1551 display	Possible cause	Corrective action
<p>01332</p> <p>Door control module, front passenger's side -J387-</p> <p>Malfunctioning</p> <p>No communication</p> <p>Voltage supply too high</p> <p>Voltage supply too low</p>	<ul style="list-style-type: none"> ◆ Door control module, passenger's side - J387- malfunctioning ◆ Faulty wiring or connectors ◆ Battery -A- malfunctioning or discharged ◆ Voltage regulator - C1- malfunctioning ◆ Alternator -C- malfunctioning ◆ Battery -A- malfunctioning or discharged 	<ul style="list-style-type: none"> - Replace door control module, passenger's side -J387- - Check wiring and connectors using wiring diagram - The system, even with the malfunction entry, is OK. - Erase DTC memory - Perform functional check - Using Read Measuring Value Block; display group number 012 ⇒ ⇒ Page 01-274 , display zone 2, a check can be made to see if the door control module is installed or not. - Check wiring and connectors using wiring diagram - Read Measuring Value Block; Display group number 014 ⇒ ⇒ Page 01-279 , display zone 1

01-421



V.A.G 1551 display	Possible cause	Corrective action
01455 Forwards switch for backrest adjustment -E96- Short to Ground	<ul style="list-style-type: none"> ◆ Switch malfunctioning ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Replace switch ¹⁾ - Check wiring and connectors using wiring diagram
01456 Backwards switch for backrest adjustment -E96- Short to Ground	<ul style="list-style-type: none"> ◆ Switch malfunctioning ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Replace switch ¹⁾ - Check wiring and connectors using wiring diagram
01459 Button -1- for driver's memory seat - E218- Short to Ground	<ul style="list-style-type: none"> ◆ Button malfunctioning ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Replace button ¹⁾ - Check wiring and connectors using wiring diagram

¹⁾ The button is a component part of the operating unit and can only be replaced as a complete unit.

01-422



V.A.G 1551 display	Possible cause	Corrective action
01460 Button -2- for driver's memory seat - E219- Short to Ground	<ul style="list-style-type: none"> ◆ Button malfunctioning ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Replace button ¹⁾ - Check wiring and connectors using wiring diagram
01461 Button -3- for driver's memory seat - E220- Short to Ground	<ul style="list-style-type: none"> ◆ Button malfunctioning ◆ Faulty wiring or connectors 	<ul style="list-style-type: none"> - Replace button ¹⁾ - Check wiring and connectors using wiring diagram

¹⁾ The button is a component part of the operating unit and can only be replaced as a complete unit.



Read Measuring Value Block

Special tools, testers and auxiliary items

- ◆ V.A.G 1551 Scan tool with V.A.G 1551/3 cable

- Connecting scan tool ⇒ ⇒ [Page 01-3](#) , initiating On Board Diagnostic (OBD) ⇒ ⇒ [Page 01-395](#) .

The measured values in the functions Read Measuring Value Block and basic setting are described during the individual component test. This table serves only as an overview.

The measured value block is divided into 6 display group numbers. The assignment of the individual display zones can be taken from the display group overview ⇒ ⇒ [Page 01-425](#) .

Rapid data transfer
Select function XX

HELP



Indicated on display:

- Press buttons -0- and -8- (08 initiates the "Read Measuring Value Block" function).

Rapid data transfer
08 Read Measuring Value Block

Q



Indicated on display:

- Confirm entry with the -Q- button.

Read Measuring Value Block
Input display group number XX

HELP



Indicated on display:

Note:

The display group number 001 is an example, to illustrate the sequence.

01-424



- Press buttons -0-, -0- and -1- for "Display group number 1" and confirm entry with -Q- button.

Read Measuring Value Block 1 →

1 2 3 4



Indicated on display: (1 to 4 = Display zones)

Note:

To change to another display group proceed as follows:

Display group	V.A.G 1551	V.A.G 1552
Higher	Press button - 3-	Press ↑ button
Lower	Press button - 1-	Press ↓ button
Skip	Press button - C-	Press button - C-

- Displayed after pressing -C- button.

Read Measuring Value Block HELP

Input display group number XXX



Indicated on display:

- Now enter the display group number required.

01-425



Display group overview

Break down of display content for display group number 001

Display group 001							
Read Measuring Value Block 1				◀ Indicated on display			
xxx	xxx	xxx	xxx	◀ Display zones		Evaluation	
1	2	3	4	Empty ¹⁾		⇒ ⇒ Page 01-426	
				Key number			0 to 4
				Switch position emergency off (MEM OFF)			0= off ¹⁾ 1= on
				Door contact			1 = door op 0 = door cl
				Individual switch positions -1-, -2-, -3-		0= off 1= on	

¹⁾ 0= Emergency off. No entries can be stored in this switch position.

01-426



Evaluating display group number 001

Display zone	Description	Display	Corrective action
1	Switch position for the individual keys - 1-, -2-, -3-	0= off 1= on	<ul style="list-style-type: none"> - Visual check of wiring - Check that connectors of appropriate current circuit are correctly seated and tight while simultaneously watching the display - If the content of the display does not change when checking the connectors the malfunction must be repaired, or the component in question must be replaced - Erase DTC memory - Perform functional check - Check DTC memory again
2	Switch position emergency off (MEM OFF) Door contact	0 = off ¹⁾ , 1 = on 1 = door op, 0 = door cl	
3	Key number	0 to 4	

¹⁾ 0= Emergency off. No entries can be stored in this switch position.

01-427



Break down of display content for display group number 002

Display group 002						
Read Measuring Value Block 2				◀ Indicated on display		
xxx	xxx	xxx	xxx			
1	2	3	4	◀ Display zones	Specification	Evaluation
				Backrest adjustment current recorder level	30000 ¹⁾	⇒ ⇒ Page 01-428
				Backrest adjustment button	forwards, backwards, not operat., implausible	
				Fore and aft adjustment current recorder level	30000 ¹⁾	
				Fore and aft adjustment button	forwards, backwards, not operat., implausible	

¹⁾ If the terminal 30 current supply is interrupted the recorders will lose their initialization and will be set to the value 30000. This value will change the settings for the seat correspondingly. For the seat to function correctly the initialization must be performed. For the forwards movement the recorder level will be larger for the fore and aft and backrest adjustment.

01-428



Evaluating display group number 002

Display zone	Description	Display	Corrective action
1	Fore and aft adjustment button	forwards, backwards, not operat. implausible	<ul style="list-style-type: none"> - Visual check of wiring - Check that connectors of appropriate current circuit are correctly seated and tight while simultaneously watching the display - If the content of the display does not change when checking the connectors the malfunction must be repaired, or the component in question must be replaced - Erase DTC memory - Perform functional check - Check DTC memory again
2	Fore and aft adjustment current recorder level	30000 ¹⁾	

¹⁾ If the terminal 30 current supply is interrupted the recorders will lose their initialization and will be set to the value 30000. This value will change the settings for the seat correspondingly. For the seat to function correctly the initialization must be performed. For the forwards movement the recorder level will be larger for the fore and aft and backrest adjustment.

01-429

**Evaluating display group number 002 - continued**

Display zone	Description	Display	Corrective action
3	Backrest adjustment button	forwards, backwards, not operat. implausible	
4	Backrest adjustment button current recorder level	30000 ¹⁾	

¹⁾ If the terminal 30 current supply is interrupted the recorders will lose their initialization and will be set to the value 30000. This value will change the settings for the seat correspondingly. For the seat to function correctly the initialization must be performed. For the forwards movement the recorder level will be larger for the fore and aft and backrest adjustment.



Break down of display content for display group number 003

Display group 003						
Read Measuring Value Block 3			→	◀ Indicated on display		
xxx	xxx	xxx				
1	2	3	4	Display zones	Specification	Evaluation
				Seat rear height adjustment current recorder level	30000 ¹⁾	⇒ ⇒ Page 01-431
				Seat rear height adjustment button	raise, lower, not operat., implausible	
				Seat front height adjustment current recorder level	30000 ¹⁾	
				Seat front height adjustment button	raise, lower, not operat., implausible	

¹⁾ If the terminal 30 current supply is interrupted the recorders will loose their initialization and will be set to the value 30000. This value will change the settings for the seat correspondingly. For the seat to function correctly the initialization must be performed. For the forwards movement the recorder level will be larger for the fore and aft and backrest adjustment.

01-431



Evaluating display group number 003

Display zone	Description	Display	Corrective action
1	Front seat height adjustment button	raising, lowering, not operat., implausible	<ul style="list-style-type: none"> - Visual check of wiring - Check that connectors of appropriate current circuit are correctly seated and tight while simultaneously watching the display - If the content of the display does not change when checking the connectors the malfunction must be repaired, or the component in question must be replaced - Erase DTC memory - Perform functional check - Check DTC memory again
2	Front seat height adjustment current recorder level	30000 ¹⁾	
3	Rear seat height adjustment button	raising, lowering, not operat., implausible	
4	Rear seat height adjustment current recorder level	30000 ¹⁾	

¹⁾ If the terminal 30 current supply is interrupted the recorders will lose their initialization and will be set to the value 30000. This value will change the settings for the seat correspondingly. For the seat to function correctly the initialization must be performed. For the forwards movement the recorder level will be larger for the fore and aft and backrest adjustment.



Break down of display content for display group number 004

Display group 004			
Read Measuring Value →			◀ Indicated on display
Block 4	xxx	xxx	xxx
1	2	3	4
◀ Display zones			
Passenger's side mirror potentiometer Y position			Specification
			0 to 100% ¹⁾
Passenger's side mirror potentiometer X position			Specification
			0 to 100% ¹⁾
Driver's side mirror potentiometer Y position			Specification
			0 to 100% ¹⁾
Driver's side mirror potentiometer X position			Specification
			0 to 100% ¹⁾
Evaluation			
⇒ ⇒ Page 01-433			

¹⁾ The displayed values are dependent upon the mechanical swivelling range of the mirror and only serve as a rough check. During normal operation the values 0% and 100% will not be obtained. (0% corresponds to short to Ground, 100% responds to short to B+).

01-433



Evaluating display group number 004

Display zone	Description	Display	Corrective action
1	Driver's side mirror potentiometer X position	0 to 100 % ¹⁾	<ul style="list-style-type: none"> - Visual check of wiring - Check that connectors of appropriate current circuit are correctly seated and tight while simultaneously watching the display - If the content of the display does not change when checking the connectors the malfunction must be repaired, or the component in question must be replaced - Erase DTC memory - Perform functional check - Check DTC memory again
2	Driver's side mirror potentiometer Y position	0 to 100% ¹⁾	
3	Passenger's side mirror potentiometer X position	0 to 100% ¹⁾	
4	Passenger's side mirror potentiometer Y position	0 to 100% ¹⁾	

¹⁾ The displayed values are dependent upon the mechanical swivelling range of the mirror and only serve as a rough check. During normal operation the values 0% and 100% will not be obtained. (0% corresponds to short to Ground, 100% responds to short to B+).

01-434



Break down of display content for display group number 005

Display group 005			
Read Measuring Value Block 5 →			
◀ Indicated on display			
xxx	xxx	xxx	xxx
1	2	3	4
◀ Display zones		Specification	Evaluation
Empty ¹⁾			⇒ ⇒ Page 01-435
Switch position for last reason for switching off		Block, soft stop, running period ¹⁾	
Switch position for inputs and initialization		Term. X, Reversing switch, Init. mode	
Vehicle system voltage terminal 30		Volts	

1)) 0= off, 1= on

01-435



Evaluating display group number 005

Display zone	Description	Display	Corrective action
1	Vehicle system voltage terminal 30	Volts	<ul style="list-style-type: none"> - Visual check of wiring - Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display - If the display does not change when operating, repair malfunction or replace relevant component - Erase DTC memory - Perform functional check - Check DTC memory again
2	Switch position for inputs and initialization	Terminal X, Reversing switch, Init. mode ¹⁾	
3	Switch position for last reason for switching off	Block, soft stop, running period ¹⁾	<ul style="list-style-type: none"> - If necessary readapt radio wave remote control (function 10, adaptation)

1)) 0= off, 1= on

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Break down of display content for display group number 006

Display group 006						
Read Measuring Value Block 6 →				◀ Indicated on display		
xxx	xxx	xxx	xxx	◀ Display zones		Specification
1	2	3	4			Evaluation
				Blank		
				Blank		
				Blank		
	Check bus					Bus OK. Bus not OK.

01-437

**Evaluating display group number 006**

Display zone	Description	Display	Corrective action
1	Check bus	Bus OK. Bus not OK.	<ul style="list-style-type: none">- Visual check of wiring- Check that connections of relevant current circuit are correctly connected and seated securely while simultaneously observing display- If the display does not change when operating, repair malfunction or replace relevant component- If no changes occur, separate all door main connectors and reconnect one after the other again- Observe measured value block- If display changes, replace relevant control module- Erase DTC memory- Perform functional check- Check DTC memory again