

01-1

VAG1551 Scan Tool (ST), connecting

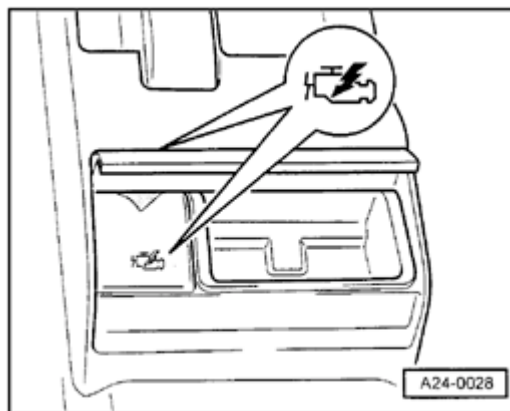
Note:

The VAG1552 mobile scan tool can be used instead of the VAG1551, but there is no print-out capability.

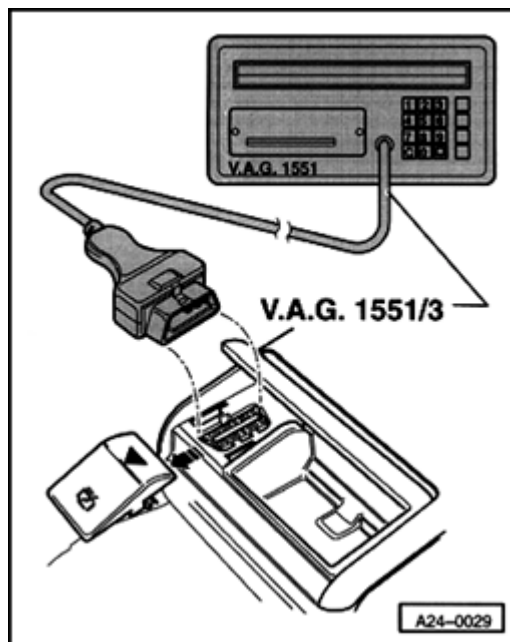
Requirements

- Battery Positive Voltage (B+) OK (at least 11 Volts)
- Engine and transmission Ground (GND) connections OK
- Fuse OK

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Vehicles 1996

- A** - Open rear ash tray and remove Data Link Connector (DLC) cover.

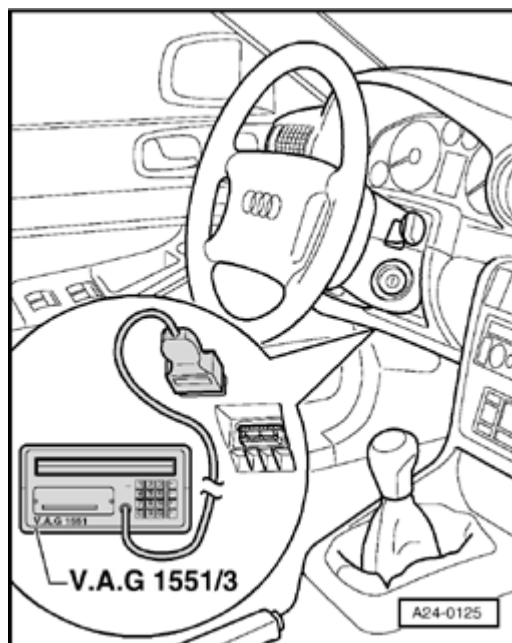


- A** - Connect VAG1551 or VAG1552 Scan Tool (ST) with VAG1551/3 adapter to Data Link Connector (DLC).

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Vehicles 1997 ➤**Note:**

The DLC is located below the driver's knee bar to the left of the steering wheel.

**V.A.G - ON BOARD DIAGNOSTIC HELP****1 - Rapid data transfer1)****2 - Blink Code Output1)**

- Connect VAG1551 or VAG1552 Scan Tool (ST) with VAG1551/3 adapter to Data Link Connector (DLC).

All vehicles

Indicated on display

1) Operating modes 1 and 2 are displayed alternately

If one of these messages is indicated on the display, perform On Board Diagnostic (OBD) according to OBD instructions:

Rapid data transfer **HELP**
Control module does not answer



Indicated on display

or

Rapid data transfer **HELP**
Error in communication link



Indicated on display

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Rapid data transfer HELP
K wire not switching to Ground

or

 Indicated on display

or

 Indicated on display

- Check wiring connections for Data Link Connector (DLC).

⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder*

Note:

If nothing appears on display:

⇒ *Scan tool operating instructions*

- Switch printer on by pressing PRINT button (indicator lamp in button lights up).
- Press button -1- to select "Rapid data transfer" operating mode 1.

Rapid data transfer HELP
Insert address word XX

 Indicated on display**Note:**

After inserting "Automatic Test Sequence" address word 00 and pressing the -Q- button, an automatic test sequence is carried out (checks DTC memory for all systems with rapid data transfer capability).

01-5

Airbag system (with and without side airbag) On Board Diagnostic (OBD)

General Information

Vehicles ➤ 1997

The airbag system includes a driver-side airbag, passenger-side airbag, and two front seat belt tensioners. These are ignited centrally by the airbag control module -J234- if the specified activation criteria are met during a crash.

Vehicles 1997 ➤ 1999 : up to VIN 8D XA 200 000

The airbag system includes a driver-side airbag, passenger-side airbag, two front seat belt tensioners, side airbag, driver's side, side airbag, passenger side, and two or three (1998 and on) rear seat belt tensioners. If the specified activation criteria are met during a crash, they are ignited centrally by the airbag control module -J234-.

Regardless of the type of crash or crash intensity, the airbag control module sends a "crash signal" to the central locking control module. This function provides passive security. With the help of the central locking system, it unlocks the doors, opens the rear lid and blocks

interior switches when an airbag is triggered.
Also, interior lighting is switched on. The "crash
signal" can be checked using the Output
Diagnostic Test Mode ⇒ [page 01-44](#) .

1999 vehicles ➤: from VIN 8D XA 200 001

Airbag system includes: side airbag, passenger-side airbag, two front seat belt tensioners, two front side airbags, two or three rear seat belt tensioners and side curtain airbags. In a crash situation, these are ignited centrally by the airbag control module -J234- when specified triggering criteria are met.

In a crash situation, the control module sends a crash signal to the central locking control module. This function is a passive safety feature. It releases door locks and the rear lid lock via the central locking system if an airbag and/or belt tensioner is triggered. Also, inside door lock switches are blocked and interior lighting is switched on. The "crash signal" can be checked using output Diagnostic Test Mode (DTM) ⇒ [page 01-44](#) .

When the airbags and/or belt tensioners are deployed, the control module will record the DTC "Crash data stored."

Airbag control module -J234- must be replaced following:

- ◆ The 1st driver-side/passenger-side airbag deployment.
- ◆ The 3rd time front seat belt tensioners and/or

side airbags are triggered.

For vehicles with airbag 8 (➤10/98) the crash signal cannot be erased using the VAG1551 scan tool after the 3rd deployment.

All vehicles

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

After the ignition is switched on, the airbag Malfunction Indicator Lamp (MIL) -K75- lights for about 4 seconds and then goes out.

- ◆ If the airbag Malfunction Indicator Lamp (MIL) - K75- does not go out after approximately 4 seconds, the voltage supply for the airbag control module -J234- is not OK. Check DTC memory ⇒ [page 01-11](#) .
- ◆ If the airbag Malfunction Indicator Lamp (MIL) - K75- goes out after 4 seconds and then lights again, either the control module is not coded, an incorrect control module has been installed or a malfunction is present. Check DTC memory ⇒ [page 01-11](#) .

CAUTION!

- ◆ **Wiring must only be checked visually!**
- ◆ **Do not perform an electrical continuity check or circuit analysis!**

♦ *Check wire routing only when ignition is switched off!*

Airbag system On Board Diagnostic (OBD), initiating

Requirements

- Power supply and fuses for relevant system OK

⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder*

- VAG1551 Scan Tool (ST) connected ⇒ [page 01-1](#)
- Ignition switched on

Notes:

- ◆ *Malfunctions which have only occurred briefly are classified as "Sporadic malfunctions" and are identified by the "/SP" on the right side of the display.*
- ◆ *To eliminate these sporadic malfunctions, erase DTC memory before starting repair work.*
- ◆ *Additional operating instructions can be*

obtained by pressing the VAG1551 Scan Tool (ST) HELP button.

- ◆ *The → button is used to advance through the program sequence.*
- Switch printer on by pressing PRINT button (indicator lamp in button lights up).
- Press button -1- to select "Rapid data transfer" operating mode 1.

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Rapid data transfer **HELP**
Insert address word XX

⏪ Indicated on display

Address word for the airbag system: 15

- Press buttons -1- and -5- to insert "Airbag" address word 15.

Rapid data transfer **Q**
15 - Airbag

⏪ Indicated on display

- Press -Q- button to confirm input.

Rapid data transfer
Scan Tool sends address word 15

⏪ Indicated on display

Vehicles ➤ 1997:

8A0959655D Airbag V AUDI D02 ➡
Coding 00766 WSC 06812

⏪ Indicated on display after about 5 seconds

Vehicles 1997 ➤ up to 1999: VIN 8DXA 200 000

8D0959655C Airbag 7 AUDI D00 ➡
Coding 00102 WSC 06812

⏪ - Indicated on display after approx. 5 seconds

Vehicles 1999 ➤: from VIN 8D XA 200 001

8D0959655J Airbag Front+Side 0004 ➡
Coding 01106 WSC 06812

⏪ - Indicated on display after approx. 5 seconds:
Front and side airbag or front and side curtain airbag

All vehicles

- Press → button to advance through program sequence.

Rapid data transfer

HELP

Select function XX



Indicated on display

Note:

A list of available functions is printed out when the HELP button is pressed.

On Board Diagnostic (OBD) functions

The following functions are possible:

01 - Check Control Module Versions ⇒ [page 01-41](#)

02 - Check DTC Memory ⇒ [page 01-11](#)

03 - Output Diagnostic Test Mode (vehicles 1997 ➤ 1998 only ⇒ [page 01-44](#)) (vehicles 1999 ➤ only ⇒ [page 01-46](#))

05 - Erase DTC Memory ⇒ [page 01-137](#)

06 - End Output ⇒ [page 01-139](#)

07 - Code Control Module ⇒ [page 01-51](#)

08 - Read Measuring Value Block ⇒ [page 01-57](#)

Note:

Function 03 is only available for vehicles 1997 ➤.

Check DTC Memory (scan tool function 02)

Note:

The DTC display information is updated only when initiating the On Board Diagnostic (OBD) or "Erase DTC Memory" function 05.

- Switch printer on by pressing PRINT button (indicator lamp in button lights up).

Carrying out "Check DTC Memory" function 02

Rapid data transfer **HELP**
Select function XX

⏮ Indicated on display

- Press buttons -0- and -2- to select "Check DTC Memory" function 02.

Rapid data transfer **Q**
02 - Check DTC Memory

⏮ Indicated on display

- Press -Q- button to confirm input.

X DTC recognized ➡

⏮ Indicated on display (number of stored Diagnostic Trouble Codes, DTCs).

or:

No DTC recognized ➡

⏮ If the message "No DTC recognized" is displayed, the program can be returned to the starting point by pressing the ➡ button.

Rapid data transfer

HELP

Select function XX



Indicated on display

If something else is displayed:

⇒ *Scan tool operating instructions*

- Erase DTC Memory (function 05) ⇒ [page 01-137](#) .
- End Output (function 06) ⇒ [page 01-139](#) .
- Disconnect VAG1551 Scan Tool (ST) from Data Link Connector (DLC).

Diagnostic Trouble Code (DTC) table, airbag system

Notes:

- ◆ *In the following table, all the possible malfunctions that can be recognized by the airbag control module -J234- are listed according to their DTC code numbers. Existing malfunctions will be printed with their 5-digit DTC only if the VAG1551 printer is switched on.*
- ◆ *If a malfunction occurs persistently, the airbag Malfunction Indicator Lamp (MIL) -K75- will light up and remain lit until the malfunction is repaired and the DTC memory has been erased.*
- ◆ *If a malfunction occurs only occasionally or if the DTC memory is not erased after a malfunction is repaired, the malfunction will be displayed as a sporadic malfunction. Such malfunctions are identified by the letters "/SP" to the right on the VAG1551 display and will cause -K75- to light up continuously.*
- ◆ *Before replacing a component shown as malfunctioning, check the wiring to the component for short or open circuit according to the wiring diagram.*
- ◆ *The three digit malfunction type number appearing next to the DTC is a data code which can be disregarded.*

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DTC VAG 1551 scan tool display	Possible cause	Corrective action
00532 Supply voltage B+ Supply voltage too low	◆ Battery discharged or faulty ◆ Short circuit in vehicle electrical system	- Recharge or replace battery. - Repair short circuit in vehicle electrical system.
00588 Airbag Igniter-Driver Side-N95 Resistance value too large	◆ Open circuit in wiring ◆ Spiral spring faulty ◆ Driver-side airbag unit faulty ◆ Airbag control module -J234-faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Check spiral spring. - Replace driver-side airbag unit. - Replace airbag control module -J234-.
00588 Airbag Igniter-Driver Side-N95 Resistance value too small	◆ Short circuit in wiring ◆ Spiral spring faulty ◆ Driver-side airbag unit faulty ◆ Airbag control module -J234-faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Check spiral spring.

		- Replace driver-side airbag unit. - Replace airbag control module -J234-.
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DTC VAG 1551 scan tool display	Possible cause	Corrective action
00588 Drivers side airbag igniter -N95- Short circuit to B+	◆ Wire damaged ◆ Airbag control module -J234-malfunctioning	- Repair wiring according to wiring diagram ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace airbag control module -J234-
00588 Drivers side airbag igniter -N95- Short circuit to Ground	◆ Wire damaged ◆ Driver-side airbag unit malfunctioning ◆ Airbag control module -J234-malfunctioning	- Repair wiring according to wiring diagram ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace driver-side airbag unit - Replace airbag control module -J234-

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DTC VAG 1551 scan tool display	Possible cause	Corrective action
00589 Airbag Igniter 1-Passenger Side-N131 Resistance value too large	◆ Open circuit in wiring ◆ Passenger-side airbag unit faulty ◆ Airbag control module - J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace passenger-side airbag unit. - Replace airbag control module -J234-.
00589 Airbag Igniter 1-Passenger Side-N131 Resistance value too small	◆ Short circuit in wiring ◆ Passenger-side airbag unit faulty ◆ Airbag control module - J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace passenger-side airbag unit. - Replace airbag control module -J234-.

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DTC VAG 1551 scan tool display	Possible cause	Corrective action
00589 Passengers side airbag igniter 1 - N131- Short circuit to B+	◆ Wire damaged ◆ Airbag control module -J234- malfunctioning	- Repair wiring according to wiring diagram ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace airbag control module -J234-
00589 Passengers side airbag igniter 1 - N131- Short circuit to Ground	◆ Wire damaged ◆ Passenger-side airbag unit malfunctioning ◆ Airbag control module -J234- malfunctioning	- Repair wiring according to wiring diagram ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace passenger-side airbag unit - Replace airbag control module -J234-

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V.A.G 1551 print-out	Possible malfunction cause	Corrective action
00589 Igniter 1 for airbag (passenger's side) -N131 Short to Ground	◆ Wiring damaged ◆ Front passenger's airbag unit faulty ◆ Airbag control unit -J234 faulty	- Repair per wiring diagram ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace front passenger's airbag unit - Replace airbag control unit -J234
00591 Left Seat Belt Switch -E24 Implausible switch condition	◆ Left belt lock switch faulty	- Replace left belt lock switch
00591 Left Seat Belt Switch -E24 Short circuit to positive	◆ Wiring damaged	- Check and repair wiring harness - Repair per wiring diagram ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i>
00591 Left Seat Belt Switch -E24 Short circuit to Ground	◆ Wiring damaged	- Check and repair wiring harness - Repair per wiring diagram ⇒ <i>Electrical Wiring Diagrams, Troubleshooting &</i>

		<i>Component Locations binder</i>
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01-19

V.A.G 1551 print-out	Possible malfunction cause	Corrective action
00592 Right Seat Belt Switch - E25 Implausible switch condition	♦ Right belt lock switch faulty	- Replace right belt lock switch
00592 Right Seat Belt Switch - E25 Short circuit to positive	♦ Wiring damaged	- Check and repair wiring harness - Repair per wiring diagram ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i>
00592 Right Seat Belt Switch - E25 Short circuit to Ground	♦ Wiring damaged	- Check and repair wiring harness - Repair per wiring diagram ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i>

01-20

DTC VAG 1551 scan tool display	Possible cause	Corrective action
00594 Airbag Ignition Circuit Short circuit to B+	◆ Wiring damaged ◆ Airbag control module - J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace airbag control module -J234-.
00594 Airbag Ignition Circuit Short circuit to Ground	◆ Wiring damaged ◆ Spiral spring faulty ◆ Driver-side airbag faulty ◆ Airbag control module - J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Check spiral spring. - Replace driver-side airbag unit. - Replace airbag control module -J234-.
00595 Crash Data Stored	◆ Frontal collision ◆ Side collision	- Replace airbag control module, airbag units, seat belt tensioners and if necessary, faulty components.

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DTC VAG 1551 scan tool display	Possible cause	Corrective action
00654 Seat Belt Tensioner Igniter,L-N153 Resistance value too large	◆ Open circuit in wiring ◆ Harness connector for left seat belt tensioner igniter disconnected ◆ Seat belt tensioner igniter faulty ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Reconnect harness connector. - Replace left seat belt tensioner. - Replace airbag control module -J234-.
00654 Seat Belt Tensioner Igniter,L-N153 Resistance value too small	◆ Short circuit in wiring ◆ Left seat belt tensioner igniter faulty ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace left seat belt tensioner. - Replace airbag control module -J234-.
00654 Seat Belt Tensioner Igniter,L-N153	◆ Wiring damaged ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting &</i>

Short circuit to B+	<i>Component Locations binder</i> - Replace airbag control module -J234-.
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DTC VAG 1551 scan tool display	Possible cause	Corrective action
00654 Seat Belt Tensioner Igniter,L-N153 Short circuit to Ground	◆ Wiring damaged ◆ Left seat belt tensioner igniter faulty ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace left seat belt tensioner. - Replace airbag control module -J234-.
00655 Seat Belt Tensioner Igniter,R-N154 Resistance value too large	◆ Open circuit in wiring ◆ Harness connector for right seat belt tensioner igniter disconnected ◆ Seat belt tensioner igniter faulty ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Reconnect harness connector. - Replace right seat belt tensioner. - Replace airbag control module -J234-.

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DTC VAG 1551 scan tool display	Possible cause	Corrective action
00655 Seat Belt Tensioner Igniter,R-N154 Resistance value too small	◆ Short circuit in wiring ◆ Right seat belt tensioner igniter faulty ◆ Airbag control module - J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace right seat belt tensioner. - Replace airbag control module -J234-.
00655 Seat Belt Tensioner Igniter,R-N154 Short circuit to B+	◆ Wiring damaged ◆ Airbag control module - J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace airbag control module -J234-.
00655 Seat Belt Tensioner Igniter,R-N154 Short circuit to Ground	◆ Wiring damaged ◆ Right seat belt tensioner igniter faulty ◆ Airbag control module - J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace right seat belt tensioner.

		- Replace airbag control module -J234-.
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DTC VAG 1551 scan tool display	Possible cause	Corrective action
01044 Control Module incorrectly coded	◆ Control module incorrectly coded for vehicle configuration	- Code airbag control module -J234- appropriately.

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Vehicles ➤ 1997:

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01025 Malfunction Indicator Lamp Faulty Open circuit to Ground	◆ Open circuit in wiring ◆ Airbag Malfunction Indicator lamp (MIL) -K75- ◆ Instrument cluster faulty ◆ Airbag control module -J234-faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Repair open circuit in wiring. - Replace Malfunction Indicator Lamp -K75-. - Repair instrument cluster. - Replace airbag control module -J234-.
01025 Malfunction Indicator Lamp Faulty Short circuit to Ground	◆ Wiring damaged ◆ Airbag Malfunction Indicator lamp (MIL) -K75- ◆ Instrument cluster faulty ◆ Airbag control module -J234-faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace Malfunction Indicator Lamp -K75-. - Repair instrument cluster. - Replace airbag control module -J234-.

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DTC VAG 1551 scan tool display	Possible cause	Corrective action
01025 Malfunction Indicator Lamp Faulty Short circuit to B+	◆ Wiring damaged ◆ Airbag control module - J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace airbag control module -J234-.

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Vehicles 1997 ➤ :

DTC	Possible cause	Corrective action
VAG 1551 scan tool display		
01211 Igniter for Belt Tens., Rr., Driver-N196 (sensor for lateral acceleration) Resistance value too large	◆ Wiring damaged ◆ Seat belt tensioner igniter -N196- faulty ◆ Airbag control module - J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace seat belt tensioner igniter -N196-. - Replace airbag control module -J234-.
01211 Igniter for Belt Tens., Rr., Driver-N196 Resistance value too small	◆ Wiring damaged ◆ Seat belt tensioner igniter -N196- faulty ◆ Airbag control module - J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace seat belt tensioner igniter -N196- - Replace airbag control module -J234-.

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DTC VAG 1551 scan tool display	Possible cause	Corrective action
01211 Igniter for Belt Tens., Rr., Driver-N196 Short circuit to B+	◆ Wiring damaged ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace airbag control module -J234-.
01211 Igniter for Belt Tens., Rr., Driver-N196 Short circuit to Ground	◆ Wiring damaged ◆ Seat belt tensioner igniter - N196- faulty ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace seat belt tensioner igniter -N196-. - Replace airbag control module -J234-.
01211 Igniter for Belt Tens., Rr., Driver-N196 Open circuit	◆ Wiring damaged ◆ Seat belt tensioner igniter - N196- faulty ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace seat belt tensioner igniter -N196-.

		- Replace airbag control module -J234-.
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DTC VAG 1551 scan tool display	Possible cause	Corrective action
01212 Igniter for Belt Tens., Rr., Pass.-N197 Resistance value too large	◆ Wiring damaged ◆ Seat belt tensioner igniter - N197- faulty ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace seat belt tensioner igniter -N197-. - Replace airbag control module -J234-.
01212 Igniter for Belt Tens., Rr., Pass.-N197 Resistance value too small	◆ Wiring damaged ◆ Seat belt tensioner igniter - N197- faulty ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace seat belt tensioner igniter -N197-. - Replace airbag control module -J234-.
01212 Igniter for Belt Tens., Rr., Pass.-N197 Short circuit to B+	◆ Wiring damaged ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i>

		- Replace airbag control module -J234-.
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DTC VAG 1551 scan tool display	Possible cause	Corrective action
01212 Igniter for Belt Tens., Rr., Pass.-N197 Short circuit to Ground	◆ Wiring damaged ◆ Seat belt tensioner igniter - N197- faulty ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace seat belt tensioner igniter -N197-. - Replace airbag control module -J234-.
01212 Igniter for Belt Tens., Rr., Pass.-N197 Open circuit	◆ Wiring damaged ◆ Seat belt tensioner igniter - N197- faulty ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace seat belt tensioner igniter -N197-. - Replace airbag control module -J234-.

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DTC VAG 1551 scan tool display	Possible cause	Corrective action
01213 Igniter for Belt Tens., Rr., Ctr.-N198 Resistance value too large	◆ Wiring damaged ◆ Seat belt tensioner igniter - N198- faulty ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace seat belt tensioner igniter -N198-. - Replace airbag control module -J234-.
01213 Igniter for Belt Tens., Rr., Ctr.-N198 Resistance value too small	◆ Wiring damaged ◆ Seat belt tensioner igniter - N198- faulty ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace seat belt tensioner igniter -N198-. - Replace airbag control module -J234-.
01213 Igniter for Belt Tens., Rr., Ctr.-N198 Short circuit to B+	◆ Wiring damaged ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i>

		- Replace airbag control module -J234-.
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DTC VAG 1551 scan tool display	Possible cause	Corrective action
01213 Igniter for Belt Tens., Rr., Ctr.-N198 Short circuit to Ground	◆ Wiring damaged ◆ Seat belt tensioner igniter - N198- faulty ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace seat belt tensioner igniter -N198-. - Replace airbag control module -J234-.
01213 Igniter for Belt Tens., Rr., Ctr.-N198 Open circuit	◆ Wiring damaged ◆ Seat belt tensioner igniter - N198- faulty ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace seat belt tensioner igniter -N198-. - Replace airbag control module -J234-.

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DTC VAG 1551 scan tool display	Possible cause	Corrective action
01217 Side Airbag Igniter, Driver's Side-N199 Resistance value too large	◆ Open circuit in wiring ◆ Side airbag unit, driver's side faulty ◆ Airbag control module - J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace side airbag unit, driver's side. - Replace airbag control module -J234-
01217 Side Airbag Igniter, Driver's Side-N199 Resistance value too small	◆ Short circuit in wiring ◆ Side airbag, driver's side faulty ◆ Airbag control module - J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace side airbag, driver's side - Replace airbag control module -J234-.
01217 Side Airbag Igniter, Driver's Side-N199 Short circuit to B+	◆ Wiring damaged ◆ Airbag control module - J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i>

		- Replace airbag control module -J234-.
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01-34

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01217 Side Airbag Igniter, Driver's Side-N199 Short circuit to Ground	◆ Wiring damaged ◆ Side airbag, driver's side faulty ◆ Airbag control module - J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace side airbag, driver's side. - Replace airbag control module -J234-.
01218 Side Airbag Igniter, Pass. Side-N200 Resistance value too large	◆ Open circuit in wiring ◆ Side airbag, passenger side faulty ◆ Airbag control module - J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace side airbag, passenger side. - Replace airbag control module -J234-.
01218 Side Airbag Igniter, Pass. Side-N200 Resistance value too small	◆ Short circuit in wiring ◆ Side airbag, passenger side faulty ◆ Airbag control module -	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i>

	J234- faulty	- Replace side airbag, passenger side. - Replace airbag control module -J234-.
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01-35

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01218 Side Airbag Igniter, Pass. Side-N200 Short circuit to B+	◆ Wiring damaged ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace airbag control module -J234-.
01218 Side Airbag Igniter, Pass. Side-N200 Short circuit to Ground	◆ Wiring damaged ◆ Side airbag, passenger side faulty ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace side airbag, passenger side. - Replace airbag control module -J234-.
01221 Crash Sens. Side Airbag Driv. Side-G179 (sensor for lateral acceleration)	◆ Open circuit in wiring ◆ Harness connector for crash sensor	- Repair wiring according to wiring diagram.

Open circuit	for side airbag, driver's side disconnected ◆ Crash sensor for side airbag, driver's side -G179 faulty ◆ Airbag control module -J234- faulty	⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Reconnect harness connector. - Replace crash sensor -G179-. - Replace airbag control module -J234-.
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01-36

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01221 Crash Sens. Side Airbag Driv. Side-G179 (sensor for lateral acceleration) Short circuit	◆ Short circuit in wiring to B+ or Ground ◆ Crash sensor for side airbag, driver's side -G179 faulty ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace crash sensor -G179-. - Replace airbag control module -J234-.
01221 Crash Sens. Side Airbag Driv. Side-G179 (sensor for lateral acceleration) Not authorized	◆ Airbag control module -J234- incorrectly coded ◆ Control module and crash sensor do not match	- Replace control module -J234-. - Replace crash sensor -G179-.
01222 Crash Sens. Side Airbag Pass. Side-G180 (sensor for lateral acceleration) Open circuit	◆ Open circuit in wiring ◆ Harness connector for crash sensor for side airbag, passenger side disconnected ◆ Crash sensor for side airbag, passenger side -G180- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i>

	◆ Airbag control module -J234- faulty	- Reconnect harness connector. - Replace crash sensor -G180-. - Replace airbag control module -J234-.
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01-37

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01222 Crash Sens. Side Airbag Pass. Side-G180 (sensor for lateral acceleration) Short circuit	◆ Short circuit in wiring to B+ or Ground ◆ Crash sensor for side airbag, passenger side -G180- faulty ◆ Airbag control module -J234- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace crash sensor -G180-. - Replace airbag control module -J234-.
01222 Crash Sens. Side Airbag Pass. Side-G180 (sensor for lateral acceleration) Not authorized	◆ Airbag control module -J234- incorrectly coded ◆ Control module and crash sensor do not match	- Replace control module -J234-. - Replace crash sensor -G180-.
01223 Signal Open Central Locking	◆ Airbag control module -J234- faulty	- Replace airbag control module -J234-.
01280 1) Airbag Passenger Side Switched Off	◆ Passenger-side airbag was switched off during adaptation	- Adapt airbag control module -J234- as appropriate.

01-38

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01578 Wng.Light for Airbag Off,Pass. Side-K145 Short circuit to B+	◆ Wiring damaged ◆ Airbag control module -J234-faulty	- Repair wiring according to wiring diagram ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace airbag control module -J234-
01578 Wng.Light for Airbag Off,Pass. Side-K145 Open/Short circuit to ground	◆ Wiring damaged ◆ Warning light for airbag off, passenger side -K145- faulty ◆ Airbag control module -J234-faulty	- Repair wiring according to wiring diagram ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace warning light -K145- - Replace airbag control module -J234-
01588 Ign. for Side Curtain Airbag, Driver Side-N251Resistance value too large	◆ Open circuit in wiring ◆ Driver-side side curtain airbag faulty ◆ Airbag control module faulty	- Repair open circuit. - Replace driver-side side curtain airbag. - Replace airbag control module -J234-.

¹⁾ Only airbag 7 (from 07.96 on) and airbag 8. The DTC is stored in memory even if the airbag control module -J134- has been adapted appropriately.

01-39

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01588 Ign. for Side curtain airbag, Driver Side-N251Resistance vaule too small	◆ Short circuit in wiring ◆ Driver-side side curtain airbag faulty ◆ Airbag control module faulty	- Repair short circuit. - Replace driver-side side curtain airbag. - Replace airbag control module -J234-.
01588 Ign. for Side curtain Airbag, Driver Side-N251Short circuit to B+	◆ Wiring damaged ◆ Airbag control module faulty	- Repair damaged wiring. - Replace airbag control module -J234-.
01588 Ign. for Side curtain Airbag, Driver Side-N251Short circuit to Ground	◆ Wiring damaged ◆ Driver-side side curtain airbag faulty ◆ Airbag control module faulty	- Repair damaged wiring. - Replace driver-side side curtain airbag. - Replace airbag control module -J234-.
01589 Igniter for Airbag Pass. Side-N252Resistance value too large	◆ Open circuit in wiring ◆ Passenger-side side curtain	- Repair open circuit. - Replace passenger-side side

	airbag faulty ♦ Airbag control module faulty	curtain airbag. - Replace airbag control module -J234-.
01589 Igniter for Airbag Pass. Side-N252Resistance vaule too small	♦ Short circuit in wiring ♦ Passenger-side side curtain airbag faulty ♦ Airbag control module faulty	- Repair short circuit. - Replace passenger-side side curtain airbag. - Replace airbag control module -J234-.

01-40

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01589 Igniter for Airbag Pass. Side-N252Short circuit to B+	◆ Wiring damaged ◆ Airbag control module faulty	- Repair damaged wiring. - Replace airbag control module - J234-.
01589 Igniter for Airbag Pass. Side-N252Short circuit to Ground	◆ Wiring damaged ◆ Passenger-side side curtain airbag faulty ◆ Airbag control module faulty	- Repair damaged wiring. - Replace passenger-side side curtain airbag. - Replace airbag control module - J234-.
65535 Control Module Malfunctioning		- Replace airbag control module - J234-.

Note:

DTC 65535 "Control Module Malfunctioning" cannot be erased using the VAG1551 Scan Tool (ST).

01-41

Check Control Module Versions (scan tool function 01)

- Press buttons -0- and -1- to select "Check Control Module Versions" function 01.

Rapid data transfer Q
01 - Check Control Module Versions

← Indicated on display

- Press -Q- button to confirm input.

Vehicles ➤ 1997

← Indicated on display after about 5 seconds

Explanation of display

- ◆ 8A0959655D: Part No. of airbag control module
 - ◆ Airbag V AUDI: airbag system designation
 - ◆ D02: software version of control module for airbag in Audi vehicles
 - ◆ Coding 00766: coding for airbag control module. Code Control Module table ⇒ [page 01-52](#) .
 - ◆ WSC 06812: dealership number
- Press ➡ button to return to "Select function XX" prompt.

Rapid data transfer HELP
Select function XX

← Indicated on display

01-42

8D0959655C	Airbag 7	AUDI D00	→
Coding 00102		WSC 06812	

Vehicles 1997 ➤ 1999: up to VIN 8D XA 200 000

⏪ Indicated on display after about 5 seconds

Explanation of display

- ◆ 8D0959655D: Part No. of airbag control module (front and side airbags)
 - ◆ 8D0959655M: Part No. of airbag control module (front and side airbags)
 - ◆ Airbag 7: airbag system designation
 - ◆ AUDI D00: software version of control modules for Audi vehicles (control module identification No. can also be a 4 digit number)
 - ◆ Coding 00102: coding for airbag control module. Code Control Module table ⇒ [page 01-53](#)
 - ◆ WSC 06812: dealership number
- Press ➡ button to return to "Select function XX" prompt.

Rapid data transfer	HELP
Select function XX	

⏪ Indicated on display

8D0959655K Airbag Front+Side D004 →
Coding 01106 WSC 06812

Vehicles 1999 ➤: from VIN 8D XA 200 001



- Indicated on display after approx. 5 seconds:

Explanation of display

- ◆ 8D0959655K: Part No. of airbag control module (front and side airbags)
- ◆ 8D0959655G: Part No. of airbag control module (front and side curtain airbags)
- ◆ Airbag front + side: component identification for airbag system

Note:

For vehicles with Airbag 8, display will indicate airbag front + side or airbag front + side curtain in place of Airbag V, Airbag 7.

- ◆ D004: software version of control module for airbag in Audi vehicles
- ◆ Coding 01106: coding of airbag control module. Coding table ⇒ [page 01-54](#)
- ◆ WSC 06812: dealership number
- Press ➡ button to return to "Select function XX" prompt.

Rapid data transfer HELP
Select function XX



Indicated on display

Output Diagnostic Test Mode (scan tool function 03) (vehicles 1997 ➤ 1998)

The Output Diagnostic Test Mode is used to check operation of the crash response system. When airbags are triggered, the central locking system unlocks the doors and simultaneously blocks internal switches. Emergency flashers and interior lights are switched on.

Notes:

Before initiating the Output Diagnostic Test Mode, switch central locking system to "closed" by operating internal switch.

Carrying out "Output Diagnostic Test Mode" function 03

Rapid data transfer **HELP**
Select function XX



Indicated on display

- Press buttons -0- and -3- to select "Output Diagnostic Test Mode" function 03.

Rapid data transfer **Q**
03 - Output Diagnostic Test Mode



Indicated on display

- Press -Q- button to confirm input.

Output Diagnostic Test Mode 
Signal: Open central locking system



Indicated on display

The central locking system must switch to "open."

Emergency flashers and interior lights switch on.

- Operate internal switch.

Central locking must switch back to "closed."

01-45

Output Diagnostic Test Mode 
END

◀ Indicated on display

- Press → button.

Rapid data transfer **HELP**
Select function XX

◀ Indicated on display

Output Diagnostic Test Mode (scan tool function 03) (vehicles 1999 ➤)

Vehicles up to calendar week (KW) 18.99

Output Diagnostic Test Mode (DTM) is used to check the operation of the crash response system. When airbags are triggered, the central locking system switches immediately to "open" and the inside door lock switches are blocked. Emergency flashers and interior lights are switched on.

Notes:

- ◆ *Before initiating output Diagnostic Test Mode (DTM), set the central locking system to "closed" by operating the interior switch.*
- ◆ *Set interior switch to "door contact" position.*
- ◆ *After output DTM is initiated, central locking cannot be operated until the DTC memory of the central locking control module is erased.*

Carrying out "Output Diagnostic Test Mode" (function 03)



Indicated on display

- Press buttons -0- and -3- to select "Output Diagnostic Test Mode"

Rapid data transfer

HELP

Select function XX

function 03 and press -Q- button to confirm input.

01-47

Output Diagnostic Test Mode 

Signal: Open central locking system



Indicated on display

Central locking must switch to "open."

Emergency flashers and interior lights switch on.

- Operate interior switch. Central locking must not switch to "closed" as long as DTC is still stored in central locking control module.

Notes:

- ◆ After this procedure step, DTC 01366 is stored in the DTC memory of the central locking control module.
- ◆ After completion of output Diagnostic Test Mode (DTM), the DTC memory of the central locking control module must be checked and this DTC must be erased ⇒ [page 01-74](#) .

Output Diagnostic Test Mode 

END



Indicated on display

- Press  button.

Rapid data transfer HELP

Select function XX



Indicated on display

Vehicles from calendar week (KW) 18.99 on

Output Diagnostic Test Mode (DTM) is used to check the operation of the crash response system. When airbags are triggered, the central locking system switches immediately to "open" and the inside door lock switches are blocked. Emergency flashers and interior lights are switched on and the fuel supply is interrupted.

Notes:

- ◆ *Before initiating output Diagnostic Test Mode (DTM), set the central locking system to "closed" by operating the interior switch and start the engine.*
- ◆ *Set interior light switch to "door contact" position.*
- ◆ *After output DTM is initiated, central locking cannot be operated until the DTC memory of the central locking control module is erased.*

Carrying out "Output Diagnostic Test Mode" (function 03)

Rapid data transfer

HELP

Select function XX



Indicated on display

- Press buttons -0- and -3- to select "Output Diagnostic Test Mode" function 03.

Rapid data transfer



03 -Output Diagnostic Test Mode



Indicated on display

- Press -Q- button to confirm input.

Output Diagnostic Test Mode

Signal: Open central locking system



Indicated on display

Engine must stop running

Central locking must switch to "open."

Emergency flashers and interior lights switch on.

- Operate interior switch. Central locking must not switch to "closed" as long as DTC is still stored in central locking control module.

Notes:

- ◆ After this procedure step, DTC 01366 is stored in the DTC memory of the central locking control module.
- ◆ After completion of output Diagnostic Test Mode (DTM), the DTC memory of the central locking control module must be checked and this DTC must be erased ⇒ [page 01-74](#) .
- ◆ Several DTCs will be stored in the DTC memory of the Engine Control Module (ECM) after this procedure.
- ◆ After completing output Diagnostic Test Mode (DTM), the DTC memory of the Engine Control Module (ECM) must be checked and erased. This procedure varies depending on the fuel injection and ignition system installed in the vehicle. Refer to Repair Group 01 of the appropriate repair manual ⇒ DTC memory, checking and erasing.
- ◆ Depending on engine type, fuel shut-off is a running-change as of KW 18.99.

01-50

◆ If engine does not stop running, check if fuel shut-off was accomplished in Engine Control Module (ECM).

⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder*

◆ If engine does not stop running, but fuel shut-off was accomplished in the Engine Control Module (ECM), check wire to Engine Control Module (ECM).

⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder*

Output Diagnostic Test Mode →
END



Indicated on display

- Press → button.

Rapid data transfer HELP
Select function XX



Indicated on display

Code Control Module (scan tool function 07)

Notes:

- ◆ *Control modules are supplied uncoded.*
- ◆ *An uncoded control module will cause the airbag Malfunction Indicator Lamp (MIL) -K75- to light up continuously.*
- ◆ *The coding procedure is carried out using the VAG1551 Scan Tool (ST).*

If no coding appears on the VAG1551 Scan Tool (ST), or if a new control module has been installed, carry out the coding procedure as follows:

01-52

Carrying out "Code Control Module" function 07

Rapid data transfer **HELP**
Select function XX



Indicated on display

- Press buttons -0- and -7- to select "Code Control Module" function 07.

Rapid data transfer **Q**
07 - Code Control Module



Indicated on display

- Press -Q- button to confirm input.

Code Control Module
Enter code number XXXXX (0-32000)



Indicated on display

- Enter coding for airbag control module using keypad:

Vehicles ➤ 1997:

Coding table for airbag control module

System variation	Coding
Driver and passenger-side airbag active, both belt tensioners active	00127

01-53

Vehicles 1997 ➤ 1999 up to VIN 8D XA 200 000:

Coding table for airbag control module

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

01-54

Vehicles 1999 ➤: from VIN 8D XA 200 001 on

Coding table for airbag control module

Airbag system		Coding
Airbag 8	Vehicles with front airbags, front side airbags, front seat belt tensioners, two rear seat belt tensioners	00104
Airbag 8	Vehicles with front airbags, front side airbags, front seat belt tensioners, three rear seat belt tensioners	00106
Airbag 8	Vehicles with front airbags, front side airbags, front seat belt tensioners, side curtain airbags two rear seat belt tensioners	00304
Airbag 8	Vehicles with front airbags, front side airbags, front seat belt tensioners, side curtain airbags three rear seat belt tensioners	00306

Code Control Module **Q**
Enter code number 00104 (0-32000)



Indicated on display (e.g. 00104)

- Press -Q- button to confirm input.

8D0959655K Airbag Front+Side D00 ➡
Coding 00104 WSC 06812



- Indicated on display (control module identification will appear on display together with coding that has been entered, e.g. 00104).

01-55

- Press → button.

Rapid data transfer HELP
Select function XX



Indicated on display

- Press buttons -0- and -6- to select "End Output" function 06.

Rapid data transfer Q
06 - End Output



Indicated on display

- Press -Q- button to confirm input.

Rapid data transfer HELP
Input address word XX



Indicated on display

01-56

Code Control Module Q
Enter code number 00102 (0-32000)

8D0959655C Airbag 7 AUDI D00 →
Coding 00102 WSC 06812

Rapid data transfer HELP
Select function XX

Rapid data transfer Q
06 - End Output

Rapid data transfer Help
Insert address word XX

All vehicles:

Indicated on display (e.g. 00102):

- Press -Q- button to confirm input.



- Display indicates control module identification with coding input (e.g. 00102).

Notes:

- ◆ Coding 00102, 00104 and 00106 can only be used for control module number "8D0959655D" or "8D0959655M."

- ◆ Explanation of display ⇒ [page 01-41](#) .

- Push → button.



Indicated on display

- Press buttons -0- and -6- to select "End Output" function 06.
This ends the function.



Indicated on display

- Press -Q- button to confirm input.



Indicated on display

Read Measuring Value Block (scan tool function 08)

Note:

The current airbag system condition can be determined by using the "Read Measuring Value Block" function 08.

Carrying out "Read Measuring Value Block" function 08

Rapid data transfer **HELP**
Select function XX



Indicated on display

- Press buttons -0- and -8- to select "Read Measuring Value Block" function 08.

Rapid data transfer **Q**
08 - Read Measuring Value Block



Indicated on display

- Press -Q- button to confirm input.

Read Measuring Value Block
Input display group number XXX



Indicated on display

- Press buttons -0-, -0- and -1- to input display group number 1 (001).
- Press -Q- button to confirm input.

01-69

Central locking On Board Diagnostic (OBD)

General Information

The new generation of central locking is capable of On Board Diagnostic. Use of DTC memory, Output Diagnostic Test Mode and Read Measuring Value Block facilitates the search for malfunctions. The central locking system variation can also be coded using the VAG1551 Scan Tool (ST).

Central locking has two pneumatic circuits. For central locking without keyless entry, the first circuit controls only the fuel filler flap; for central locking with the keyless entry system, the first circuit controls both the fuel filler flap and the driver-side door. The second circuit controls all remaining locking points.

On the safety-version of central locking, if the driver-side (or passenger-side door) is unlocked with a single command, then only that door and the first pneumatic circuit are opened. If there is another unlocking command within 5 seconds, the second pneumatic circuit is also triggered and the whole vehicle is unlocked.

If the rear lock cylinder is triggered only once, all doors will remain locked. The rear lid (or tailgate) will automatically re-lock itself after about 5 seconds.

Interior lighting will gradually increase in intensity until fully illuminated (within about 1.5 seconds) when unlocking (fades off when locking).

The control of the luggage compartment lighting proceeds from the central locking pump to the rear lid (or tailgate) contact switch. The lighting will be switched off while the rear lid is open when a certain speed threshold is surpassed (about 5 km/h) or after 10 minutes.

The new remote transmitter now uses radio frequency. For vehicles using the radio frequency remote locking system, the receiver is integrated into the central locking pump. The remote locking antenna is integrated into the wiring harness.

If no doors (or the rear lid) have been opened within 60 seconds after the central locking system is triggered via radio frequency, central locking automatically relocks everything.

If the anti-theft alarm system is armed, central locking cannot be opened via internal buttons.

All vehicles with an anti-theft system are equipped with an ultrasonic interior monitoring system. This could be an interior monitor of the 1st generation (without OBD) or of the 2nd generation (with OBD). All that is necessary is the proper coding of the central locking system
⇒ [page 01-91](#) .

Confirmation can be received from central locking as to whether the alarm system has been armed while locking the doors. The confirmation can be signalled by means of a short anti-theft

horn signal or by a brief flashing of the emergency flashers. Central locking can also be coded to give no confirmation at all.

Activation of keyless entry can be signalled by a flashing of the emergency flashers.

Central Locking On Board Diagnostic (OBD), initiating

Requirements

- Power supply and fuses for relevant system OK

⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder*

- VAG1551 Scan Tool (ST) connected ⇒ [page 01-1](#)

Notes:

- ◆ *If the display remains blank, check VAG1551 voltage supply according to wiring diagram,*
- ◆ *The Scan Tool (ST) HELP button can provide additional operating instruction.*
- ◆ *The → button is used to advance through the program sequence.*
- ◆ *If an incorrect entry is made, press the -C- button to escape.*

- Switch printer on by pressing PRINT button (indicator lamp in button lights up).
- Press button -1- to select "Rapid data transfer" operating mode 1.

Rapid data transfer

HELP

Insert address word XX



Indicated on display

01-72

Address word for central locking: 35

- Press buttons -3- and -5- to insert "Central Locking" address word 35.

Rapid data transfer Q
35 - Central Locking

⏮ Indicated on display

- Press -Q- button to confirm input.

Rapid data transfer
Scan Tool sends address word 35

⏮ Indicated on display

Vehicles ➤ 1997:

⏮ After about 5 seconds, display indicates (for example):

Vehicles 1998 ➤:

⏮ After about 5 seconds, display indicates (for example):

All vehicles:

- Press ➡ button.

Rapid data transfer HELP
Select function XX

⏮ Indicated on display

Note:

A list of available functions is printed out when the HELP button is pressed.

On Board Diagnostic (OBD) functions

The following functions are possible:

01 - Check Control Module Versions ⇒ [page 01-85](#) .

02 - Check DTC Memory ⇒ [page 01-74](#) .

03 - Output Diagnostic Test Mode ⇒ [page 01-88](#) .

05 - Erase DTC Memory ⇒ [page 01-137](#) .

06 - End Output ⇒ [page 01-139](#) .

07 - Code Control Module ⇒ [page 01-91](#) .

08 - Read Measuring Value Block ⇒ [page 01-99](#) .

Check DTC Memory (scan tool function 02)

Note:

The DTC display information is updated only when initiating the On Board Diagnostic (OBD) program or when using the "Erase DTC Memory" function 05.

- Switch printer on by pressing PRINT button (indicator lamp in button lights up).

Carrying out "Check DTC Memory" function 02

Rapid data transfer HELP
Select function XX



Indicated on display

- Press buttons -0- and -2- to select "Check DTC Memory" function 02.

Rapid data transfer Q
02 - Check DTC Memory



Indicated on display

- Press -Q- button to confirm input.

X DTC recognized →



The number of stored DTCs is indicated on display.

The stored malfunctions are displayed and printed out in sequence.

- Look up printed malfunctions in the DTC table and repair all malfunctions ⇒ [page 01-76](#) .

01-75

No DTC recognized



If the message "No DTC recognized" is displayed, the program can be returned to the starting point by pressing the → button.

Rapid data transfer

HELP

Select function XX



Indicated on display

If something else is displayed:

⇒ *Scan tool operating instructions*

- Erase DTC Memory (function 05) ⇒ [page 01-137](#) .
- End Output (function 06) ⇒ [page 01-139](#) .
- Disconnect VAG1551 Scan Tool (ST) from Data Link Connector (DLC).

Diagnostic Trouble Code (DTC) table, central locking

Notes:

- ◆ *The following table lists all the DTCs that can be recognized by the control module for central locking and printed out by the VAG1551 Scan Tool (ST). The DTCs are listed in order according to their 5-digit numbers.*
- ◆ *DTC 5-digit numbers appear only on the print-out from the scan tool.*
- ◆ *Before replacing a component shown as malfunctioning, check wiring and connections to the component as well as the Ground (GND) connections according to the relevant wiring diagram.*
- ◆ *When a repair has been completed, check and then erase DTC memory using the VAG1551 Scan Tool (ST). After that, the vehicle should be locked again (with key or remote control) and DTC memory checked again.*
- ◆ *DTC memory records all static and sporadic malfunctions. When a malfunction occurs, it is first identified as a static malfunction. If it does not occur again it is registered as a sporadic malfunction, and the letters "/SP" appear at the right of the display.*
- ◆ *When the ignition is switched on, all existing malfunctions are automatically re-classified as sporadic malfunctions and will only be registered as static malfunctions if they still occur after testing.*
- ◆ *Sporadic malfunctions which no longer occur after 50 driving cycles are erased automatically.*
- ◆ *The three digit malfunction type number appearing next to the DTC is a data code which may be disregarded.*

01-77

DTC VAG 1551 scan tool display	Possible cause	Corrective action
00955 Key 1 Adaptation limit exceeded	♦ Key not matched ♦ Key operated more than 200 times while out of range	- Perform remote transmitter coding procedure ⇒ page 01-105
00956 Key 2 Adaptation limit exceeded	♦ Key not matched ♦ Key operated more than 200 times while out of range	- Perform remote transmitter coding procedure ⇒ page 01-105
00957 Key 3 Adaptation limit exceeded	♦ Key not matched ♦ Key operated more than 200 times while out of range	- Perform remote transmitter coding procedure ⇒ page 01-105
00958 Key 4 Adaptation limit exceeded	♦ Key not matched ♦ Key operated more than 200 times while out of range	- Perform remote transmitter coding procedure ⇒ page 01-105
00991 Interior lighting		

Short circuit to positive	◆ Short circuit to in wiring	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i>
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01-78

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01360 Open ATW Switch Short circuit to Ground	◆ Short circuit to Ground in wiring 1) ◆ Door contact switch, driver's-side - F2- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Check -F2- and replace if necessary.
01361 Close ATW Switch Short circuit to Ground	◆ Short circuit to Ground in wiring 1) ◆ Door contact switch, driver's-side - F2- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Check -F2- and replace if necessary.
01362 Close Switch for Tailgate-F124 Short circuit to Ground	◆ Short circuit to Ground in wiring 1) ◆ Trunk lock alarm/central locking switch -F124- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations</i> - Check -F124- and replace if necessary.

¹⁾ A malfunction is stored if the Ground is connected for more than 1 min. (e.g. due to an incorrect operation of central locking). Only initiate a repair if there is a proper complaint, otherwise erase DTC memory ⇒ [page 01-137](#) .

01-79

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01363 Switch for CL; Drivers Door-F59 Incorrect Signal	◆ This indication can be caused by the system itself. There is no malfunction of driver's door central locking system switch -F59-.	- Ignore DTC and erase DTC memory ⇒ page 01-137 .
01364 Switch for CL; Passenger Door-F114 Incorrect Signal	◆ This indication can be caused by the system itself. There is no malfunction of passenger door central locking system switch -F114-.	- Ignore DTC and erase DTC memory ⇒ page 01-137 .
01365 Lock/Unlock Switch/Button Int. Short circuit to Ground	◆ Short circuit to Ground in wiring 1) ◆ Switch for interior lock, driver's side -E150- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Check -E150- and replace if necessary.
¹⁾ A malfunction is stored if the Ground is connected for more than 1 min. (e.g. due to an incorrect operation of central locking). Only initiate a repair if there is a proper complaint, otherwise erase DTC memory ⇒ page 01-137 .		

01-80

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01365 Lock/Unlock Switch/Button Int. Short circuit to B+	◆ Short circuit Short circuit to Ground in wiring ◆ Switch for interior lock, driver's side -E150- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Check -E150- and replace if necessary.
01366 Open Via Crash Signal Short circuit to Ground Open/short circuit to B+	◆ Output Diagnostic Test Mode performed at airbag control module -J234- ◆ Airbag control module -J234- was triggered ◆ Short circuit in wiring between airbag control module and central locking control module	- Erase DTC memory ⇒ page 01-137 . - Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i>
01367 Switch on Via CL Pump	◆ Too little pressure in pneumatic lines ◆ Central locking pump faulty	- Check pneumatic lines for leaks. - Exchange central locking pump. - Check all actuators of central locking system and replace if necessary.

01-81

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01368 Alarm Via Luggage Compartment Switch	◆ Anti-theft system triggered by unauthorized opening of rear lid ◆ Trunk lid alarm switch -F123- faulty	- Erase DTC memory. - Replace -F123-.
01369 Alarm Via Front Hood Switch	◆ Anti-theft system triggered by unauthorized opening of hood ◆ Hood alarm switch -F120- faulty	- Erase DTC memory. - Replace -F120-.
01370 Alarm Via Interior Scanning Short circuit to Ground	◆ Anti-theft system triggered by control module for ultra-sound sensors -J347- ◆ Control module for ultra-sound sensors -J347- faulty ◆ Short circuit in wiring between control module for ultra-sound sensors and central locking control module	- Erase DTC memory. - On Board Diagnostic (OBD) ultra-sound interior monitoring ⇒ page 01-108 . - Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i>
01371 Alarm Via Door Contact		

Switch Driv. Side	◆ Anti-theft system triggered by unauthorized opening of driver-side door ◆ Door contact switch, driver's side -F2- faulty	- Erase DTC memory. - Replace door contact switch -F2-.
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01-82

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01372 Alarm Via Door Ctact. Switch Rear PS	◆ Anti-theft system triggered by unauthorized opening of passenger-side and/or rear door(s) ◆ Door contact switches -F3-, -F10-, -F11- faulty	- Erase DTC memory. - Replace contact switch -F3-, -F10-, -F11-.
01373 Alarm Via Radio Ground Teminal	◆ Anti-theft system triggered by unauthorized removal of radio ◆ Ground connection for anti-theft system has an open circuit	- Erase DTC memory. - Provide Ground connection.
01374 Alarm Via Terminal 15	◆ Anti-theft system triggered by unauthorized starting (short circuiting) ◆ Short circuit between terminal 30 and 15	- Erase DTC memory. - Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i>

01-83

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01384 Alarm via Broken Glass Sensor (rear window)	◆ Anti-theft alarm triggered by attempted break-in at rear window ◆ Open in rear window defroster circuit ◆ False alarm	- Erase DTC memory - Check and repair wiring and connectors per wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace rear window ⇒ Repair Manual, Body Exterior, Repair Group 64
01389 Tailgate Open Switch-F124 Short circuit to Ground	◆ Short circuit to Ground in wiring ◆ Trunk lock alarm/central locking switch - F124- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace -F124- in trunk lock.

01-84

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01403 Broken Glass Sensors Broken glass sensor for rear left side window -G183 or Broken glass sensor for rear right side window -G184	◆ Anti-theft alarm triggered by attempted break-in at one of the side windows ◆ Open in circuit of one of the side windows ◆ False alarm	- Erase DTC memory - Check and repair wiring and connectors per wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace side window as necessary ⇒ Repair Manual, Body Exterior, Repair Group 64
65535 Control Module Malfunctioning		- Replace control module.

01-85

Rapid data transfer HELP
Select function XX

Check Control Module Versions (scan tool function 01)



Indicated on display

- Press buttons -0- and -1- to select "Check Control Module Versions" function 01.

Rapid data transfer Q
01 - Check Control Module Versions



Indicated on display

- Press -Q- button to confirm input.

Vehicles ➤ 1997



Indicated on display

8L0862257B CL-Pump, DWA, Func D04 →
Coding 12172 WSC 06812

Explanation of display

- ◆ 8L0862257B: Part No. of central locking control modules
- ◆ Central locking pump, Anti-theft system: component identification
- ◆ D04: software version
- ◆ Coding 12172: coding ⇒ [page 01-91](#)
- ◆ WSC 06812: dealership number
- Press → button

8L0862257BCL-Pump, DWA, Func D04 →
Coding 16140 WSC 06812

Vehicles 1998 ➤



Indicated on display

Explanation of display

- ◆ 8L0862257B: Part No. of central locking control modules
 - ◆ Central locking pump, Anti-theft system: component identification
 - ◆ D04: software version
 - ◆ Coding 16140: coding ⇒ [page 01-91](#)
 - ◆ WSC 06812: dealership number
- Press → button

01-87

All vehicles:

If one of these messages is indicated on the display, perform On Board Diagnostic (OBD) according to OBD instructions:

Rapid data transfer HELP
Control module does not answer

⚡ Indicated on display
or

Rapid data transfer HELP
Error in communication link

⚡ Indicated on display
or

Rapid data transfer HELP
K wire not switching to Ground

⚡ Indicated on display
or

Rapid data transfer HELP
K wire not switching to B+

⚡ Indicated on display

- Check wiring connections for Data Link Connector (DLC).

⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder*

Note:

If nothing appears on display:

⇒ *Scan tool operating instructions*

Rapid data transfer HELP

⚡ Indicated on display

Select function XX

Output Diagnostic Test Mode (scan tool function 03)

Notes:

- ◆ *The Output Diagnostic Test Mode may only be performed with the vehicle stationary and the engine not running.*
- ◆ *Any malfunctions identified by the Output Diagnostic Test Mode must be checked and repaired.*

The output DTM activates the following elements in sequence:

- ◆ Emergency flashers and anti-theft horn (only for vehicles equipped with anti-theft system)
- ◆ Interior monitoring (activated even if interior monitoring is not installed)
- ◆ Emergency flashers and interior lights as a test of the crash signal

Carrying out "Output Diagnostic Test Mode" function 03

Rapid data transfer HELP
Select function XX

◀ Indicated on display

- Press buttons -0- and -3- to select "Output Diagnostic Test Mode" function 03.

Rapid data transfer Q
03 - Output Diagnostic Test Mode

◀ Indicated on display

- Press -Q- button to confirm input.

Output Diagnostic Test Mode →
Create active alarm

◀ Indicated on display (emergency flasher and anti-theft horn are activated)

- Press → button.

Output Diagnostic Test Mode →
Next final ctrl: operate →

◀ Indicated on display

- Press → button.

Output Diagnostic Test Mode →
Activate interior monitoring

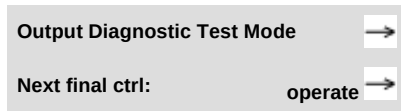
◀ Indicated on display (central locking control module sends a signal which activates interior monitoring system)

Notes:

- ◆ After activating interior monitoring, a system dependant waiting time of 30 seconds must be maintained.
- ◆ If one alarm is activated, an entry into DTC memory of the control module for central locking will be made "1370; alarm via interior monitoring" as well as into control module for ultra-sound sensors "alarm via sensor for anti-theft warning system; fl, fr, rl, rr".

- ◆ *Malfunctions must be checked and erased in DTC memory of the respective control module.*

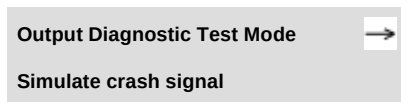
01-90



- Press → button.

⬅ Indicated on display

- Press → button.

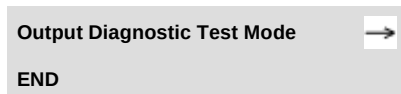


⬅ Indicated on display (emergency flashers and interior lights are triggered)

- Press → button.

Notes:

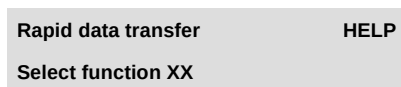
- ◆ The malfunction "1366; opening via crash-signal" is stored in DTC memory of the control module for central locking.
- ◆ Output Diagnostic Test Mode (DTM) must be repeated with airbag control module. After performing output Diagnostic Test Mode (DTM) of airbag control module, DTC "01366 opening via crash signal" will also be stored in control module for central locking.
- ◆ The malfunction must be checked in DTC memory of the control module for central locking ⇒ [page 01-74](#) and erased ⇒ [page 01-137](#).



⬅ Indicated on display

- Press → button.

The program is now back at its starting point.



⬅ Indicated on display

Code Control Module (scan tool function 07)

With coding, different central locking variations can be enabled for possible function/equipment variations.

Central locking variations:

- ◆ Central locking with anti-theft system
- ◆ Central locking with remote control and anti-theft system

Notes:

- ◆ *The basic functions of the central locking system are listed in a standard code table ⇒ [page 01-93](#) .*
- ◆ *Further coding variations are possible at the request of the customer ⇒ [page 01-94](#) .*

Carrying out "Code Control Module" function 07

Rapid data transfer

HELP

Select function XX



Indicated on display

- Press buttons -0- and -7- to select "Code Control Module" function 07.

Rapid data transfer Q
07 - Code Control Module



Indicated on display

- Press -Q- button to confirm input.

Code Control Module
Enter code number XXXXX (0-32000)



Indicated on display

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- Input coding of the central locking control module with keypad (e.g. 16140 for central locking with anti-theft/remote) vehicles1998 ➤.

Code Control Module Q
Enter code number 16140 (0-32000)

⏪ Indicated on display

- Press -Q- button to confirm input.

8L0862257N CL pump, DWA, Func D12 ➡
Coding 16140 WSC 06812

⏪ - Indicated on display (control module identification with current coding)

Note:

Explanation of display ⇒ [page 01-85](#) .

- Press ➡ button

Rapid data transfer HELP
Select function XX

⏪ Indicated on display

- Press buttons -0- and -6- to select "End Output" function 06.

Rapid data transfer Q
06 - End Output

⏪ Indicated on display

- Press -Q- button to confirm input.

Rapid data transfer HELP
Insert address word XX

⏪ Indicated on display

Standard code table**Vehicles ➤ 1997 (with Delta radio):**

Vehicle type	Central locking variation	Standard coding
Audi A4	◆ Vehicle with central locking and anti-theft system	03468
	◆ Vehicle with central locking, anti-theft system and keyless entry	12172

Vehicles 1998 ➤ (with Concert radio):

Vehicle type	Central locking variation	Standard coding
Audi A4	◆ Vehicle with central locking and anti-theft system	03340
	◆ Vehicle with central locking, anti-theft system and keyless entry	16140

01-94

All vehicles:

In addition to basic coding, it is possible to offer customers the following option:

- ◆ Vehicle automatically locks upon reaching a speed of about 15 km/h (10 mph) and unlocks when the key is removed from the ignition

Optional code table**Vehicles ➤ 1997 (with Delta radio):**

Vehicle type	Central locking variation	Optional coding
Audi A4	◆ Vehicle with central locking and anti-theft system	03500
	◆ Vehicle with central locking, anti-theft system and keyless entry	12204

Vehicles 1998 ➤ (with Concert radio):

Vehicle type	Central locking variation	Optional coding
Audi A4	◆ Vehicle with central locking and anti-theft system	03372
	◆ Vehicle with central locking, anti-theft system and keyless entry	16172

01-95

Notes:

Safety central locking (SCL) has the following functions (when vehicle is unlocked):

- ◆ *If central locking is activated only once (with key or keyless entry), the driver-side door and the fuel filler flap are unlocked, while all other doors and the rear lid remain locked.*
- ◆ *If central locking is immediately activated a second time, the remaining doors and the rear lid are unlocked.*

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

Vehicle type	Central locking version	Standard coding
Audi A4	◆ Vehicles with central locking	00001
	◆ Vehicles with central locking and anti-theft warning system	00267
	◆ Vehicles with central locking and radio-frequency remote control	12865
	◆ Vehicles with central locking, anti-theft warning system and radio-frequency remote control	13131

Note:***Coding for vehicles which have tailgates equipped with soft-touch, incorporates:***

During mechanical unlocking (via tailgate lock), the tailgate unlocks and opens. In this way, the tailgate can be opened without operating soft-touch.

01-97

Standard coding table for vehicles 18.00 ➤ :

Vehicle type	Central locking version	Standard coding
Audi A4	◆ Vehicles with central locking	02049
	◆ Vehicles with central locking and anti-theft warning system	02315
	◆ Vehicles with central locking and radio-frequency remote control	14913
	◆ Vehicles with central locking, anti-theft warning system and radio-frequency remote control	15179

Notes:**Coding for vehicles from cw 18.00 incorporates:**

- ◆ *Changed door or window regulator logic. As soon as the door is opened with "terminal. 15 off" the window regulators can no longer be operated.*
- ◆ *During mechanical unlocking (via tailgate lock), the tailgate unlocks and opens. In this way, the tailgate can be opened without operating soft-touch.*

All vehicles:

Beside the basic coding, it is possible to offer the customer the following additional functions:

To activate the following additional functions, the following number value must be added to the respective basic coding.

◆ Safety central locking (SCL)	+ 4
◆ Automatic locking of the vehicle at a speed of approx. 15 km/h	+ 32 (with SCL + 36)

The value 4 for SCL and 32 for automatic locking above a speed must be added to the current coding.

e.g. CL-pump with ATS/remote and SCL (15179 + 4 = 15183).

Notes:

- ◆ *Safety central locking (SCL) has the following function (vehicle locked):*
- ◆ *If the CL is only operated once (via key or remote control), the drivers door and the tank flap will be unlocked while all other doors and*

tailgate remain locked.

- ◆ *If the CL is immediately operated for a second time, the remaining doors and tailgate will also be unlocked.*

Read Measuring Value Block (scan tool function 08)

Note:

The current system condition can be determined by using "Read Measuring Value Block" function 08.

Carrying out "Read Measuring Value Block" function 08

Rapid data transfer HELP
Select function XX



Indicated on display

- Press buttons -0- and -8- to select "Read Measuring Value Block" function 08.

Rapid data transfer Q
08 - Read Measuring Value Block



Indicated on display

- Press -Q- button to confirm input.

Read Measuring Value Block
Input display group number XXX



Indicated on display

- Press buttons -0-, -0- and -1- to input display group number 1 (001).
- Press -Q- button to confirm input.

The selected measuring value block is now indicated in standard format.

01-100

Read Measuring Value Block, overview

Display group 001

Read Measuring Value Block 1				→	◀ Indicated on display
0100	100	0000	0000		
			X		• Rear lid: 1 = opened, 0 = closed
			X		• Luggage compartment light: 1 = light on, 0 = light off
			X		• Switch for unlocking rear lid (A8 only): 1 = activated, 0 = not activated
			X		• Motor for unlocking rear lid (A8 only): 1 = motor running, 0 = motor not running
		XX			• Actuator switch or internal switch at passenger-side door: 00 = not activated, 01 = lock, 10 = unlock, 11 = not permissible
		XX			• Actuator switch or internal switch at driver-side door: 00 = not activated, 01 = lock, 10 = unlock, 11 = not permissible
	X				• Passenger-side door and rear doors: 1 = open, 0 = closed (USA: only rear doors)
	X				• Driver-side door: 1 = open, 0 = closed (USA: driver-side and passenger-side doors)
	X				• Hood: 1 = open, 0 = closed
	Position of key in lock cylinder				

X	• Opening driver-side and passenger-side doors: 1 = key activated, 0 = key in middle position
X	• Closing driver-side and passenger-side doors: 1 = key activated, 0 = key in middle position
X	• Opening rear lid: 1 = key activated, 0 = key in middle position
X	• Closing rear lid: 1 = key activated, 0 = key in middle position

01-101

Display group 002

Read Measuring Value Block 2



◀ Indicated on display

0100

1000

111

X

- Terminal 15: 1 = Ignition on, 0 = Ignition off

X

- S-contact: 1 = S-contact on, 0 = S-contact off

X

- Ground signal from radio: 0 = Radio installed, 1 = Radio removed

X

- Remote transmitter button "open": 1 = activated, 0 = not activated

X

- Remote transmitter button "close": 1 = activated, 0 = not activated

X

- Remote transmitter button open "rear lid" (A8 only): 1 = activated, 0 = not activated

X

- Remote transmitter button "panic" (USA only): 1 = activated, 0 = not activated

X

- Interior light controls: 1 = interior light on, 0 = interior light off

X

- Control wire for window regulator/sunroof:
1 = Terminal 87 (maintaining voltage supply), 0 = Ground

- Function "comfort close:" 1 = comfort close activated, 0 = not activated

X

- Function "comfort open:" 1 = comfort open activated, 0 = not activated

X

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Display group 003

Read Measuring Value Block 3 →				Indicated on display
0	0001	0	0000	
		X		Remote transmitter button "open": 2) 1 = activated, 0 = not activated
		X		Remote transmitter button "close": 2) 1 = activated, 0 = not activated
		X		Remote transmitter button open "rear lid" (N/A): 2) 1 = activated, 0 = not activated
		X		Remote transmitter button "Panic" (N/A): 2) 1 = activated, 0 = not activated
		X		
		X		Disregard measuring value
X				Keyless entry key memory position 4 1): 1 = position occupied, 0 = not occupied
X				Keyless entry key memory position 3 1): 1 = position occupied, 0 = not occupied
X				Keyless entry key memory position 2 1): 1 = position occupied, 0 = not occupied
X				Keyless entry key memory position 1 1): 1 = position occupied, 0 = not occupied
X				Disregard measuring value

- 1) When you activate keyless entry, the relevant keyless entry key memory position blinks.
- 2) This measuring value block also shows non-coded keyless entry keys (e.g. for function control of keyless entry).

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Display group 004 (vehicles up to software version D04)

Read Measuring Value Block 4			→	◀ Indicated on display
100	1011	1100	1100	
			X	• Anti-theft system activated: 0 = no, 1 = yes
			X	• Safety central locking: 0 = no, 1 = yes
			X	• Disregard measuring value: coding always 0
			X	
		X		• Anti-theft system activated: 0 = no, 1 = yes
		X		• Interior monitoring system is OBD capable: 0 = yes, 1 = no
		X		• Locking vehicle above a speed: 0 = yes, 1 = no
		X		• Vehicle is a convertible: 0 = no, 1 = yes
	X			• USA-Door logic 1) activated: 0 = no, 1 = yes
	X			• Confirmation of anti-theft system via emergency flashers: 0 = no, 1 = yes
	X			• Confirmation of anti-theft system via horn: 0 = no, 1 = yes
	X			• Confirmation of keyless entry via emergency flashers: 0 = no, 1 = yes
X				• Remote transmitter activated: 0 = no, 1 = yes

X	• Activation of security central locking also possible with remote transmitter: 0 = no, 1 = yes
X	• Comfort closing also possible with remote transmitter: 0 = no, 1 = yes

1) Window regulators will not work if ignition is off and driver-side door is open.

01-104

Display group 004 (vehicles from software version D05)

Read measuring value block 4 → ◀ Indicated on display

100 1111 1000 1100

X

- Anti-theft warning system activated: 0 = No, 1 = Yes

X

- Safety-CL activated: 0 = No, 1 = Yes

X

- Confirmation of anti-theft warning system via emergency flashers: 0 = No, 1 = Yes
- Tailgate opening, lock cylinder rear: 0 = No, 1 = Yes

X

X

- Anti-theft warning system activated: 0 = No, 1 = Yes

X

- Interior monitoring is OBD capable: 0 = Yes, 1 = No

X

- Locking vehicle above a speed: 0 = No, 1 = Yes

X

- Vehicle is a Cabrio: 0 = No, 1 = Yes

X

- USA-door logic 1) activated: 0 = No, 1 = Yes

X

- Confirmation of radio-frequency remote control button "open" via emergency flashers: 0 = No, 1 = Yes

- Confirmation of anti-theft warning system via ATS horn: 0 = No, 1 = Yes

X

Confirmation of radio-frequency remote control button "lock" via emergency flashers:

X	• 0 = No, 1 = Yes
X	• Radio-frequency remote control activated: 0 = No, 1 = Yes
X	• For safety central locking selection, CL-function for operation via radio frequency remote, otherwise SCL-function: 0 = No, 1 = Yes
X	• Comfort locking/ -unlocking also possible via radio-frequency remote control: 0 = No, 1 = Yes

1) All window regulators are not functional, if the ignition is switched off and the drivers door is open at the same time.

Remote transmitter, coding

Two remote transmitters are supplied with the vehicle. If further transmitters are required, they must be coded to interact properly with the central locking control module.

This procedure must be performed after changing the batteries in keys with remote control function, or if the scan tool displays DTCs of 00955 to 00958

Remote transmitter coding procedure

- Switch ignition on (using separate key).
- Check how many transmitters have already been coded in measuring value block 003 ⇒ [Read Measuring Value Block page 01-99](#) .

Read Measuring Value Block 3			
0	0001	0	0000



Indicated on display

Display field 2 indicates how many remote transmitters have been coded and in which memory positions (in the example given, 1 transmitter in position 1).

- Lock vehicle from outside using key to be coded via driver-side door lock.
- Press "unlock" button within 5 seconds often enough to reach next memory position (in example given, twice).

Every press of the button is confirmed by the emergency flashers and the anti-theft system horn.

- Wait 5 seconds.

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- Now press "unlock" button one more time (vehicle unlocks).
- Switch ignition off and remove ignition key.
- Check function of new transmitter.
- Check display field 2 in measuring value block 003. It should now display another "1" (in example given: 1100).

Note:

Be sure that new transmitters are always coded into free memory positions. If occupied positions (distinguishable by a "1") are used, the transmitter previously coded to this position will no longer work.

Existing remote transmitter recoding procedure

This procedure must be performed after changing the batteries in keys with remote control function, or if the scan tool displays DTCs of 00955 to 00958

- Press any button on transmitter.

If vehicle does not respond by locking or

unlocking:

- Lock and unlock vehicle within 30 seconds using driver-side lock.
- Now check function of recoded remote transmitter.

Clearing memory positions

Note:

It is possible to clear all memory positions, e.g. if a customer loses a remote transmitter. Proceed as follows:

01-107

- Switch ignition on using key.
 - Then mechanically lock central locking from outside vehicle using key.
 - Activate remote transmitter "unlock" button on key five times at one second intervals. A short horn signal will sound each time.
 - Then, after 6 seconds, press remote transmitter "unlock" button to confirm this clearing procedure one more time.
- Central locking should no longer unlock itself via remote transmitter.
- Switch ignition off.

Up to four transmitters can now be coded again.

01-108

Ultrasonic interior monitoring On Board Diagnostic (OBD)

General Information

The ultrasonic interior monitoring system is only offered in conjunction with the anti-theft system.

The security provided by the anti-theft system is enhanced through addition of the ultrasonic interior monitoring option.

Interior monitoring activates the anti-theft alarm when unauthorized attempts are made to enter the vehicle through the side windows.

Function

The ultrasonic interior monitoring system consists of:

- ◆ Control module for ultra-sound sensors - J347-
- ◆ Ultra-sound sensor, left for anti-theft warning system -G170-
- ◆ Ultra-sound sensor, right for anti-theft warning system -G171-

- ◆ Sensor for broken window glass rear left -G183-
(only for Avant)
- ◆ Sensor for broken window glass rear right -
G184- (only for Avant)
- ◆ Switch for passenger compartment monitoring -
E183-

01-109

The ultra-sound sensors in the right and left upper B-pillar trims monitor the side windows and send the monitoring signal to the control module for ultra-sound sensors.

If the monitoring signal deviates from the norm, the control module for interior monitoring activates the alarm via the control module for the anti-theft system.

In addition to the contact switches in the lock units, glass break sensors in side windows as well as the conductor loop in rear window, (only for Avant), serve for securing the exterior of the vehicle.

The control module for interior monitoring activates the warning lamps next to the door locking buttons. These warning lamps provide further information regarding the interior monitoring system.

⇒ *Repair Manual, Electrical Equipment*

Interior monitoring can be manually shut off for the duration of a door closing via the switch for interior monitoring.

⇒ *Owner's Manual*

The ultrasonic interior monitoring system is capable of extensive On Board Diagnostic (OBD). If malfunctions in component parts develop, DTCs are stored in the DTC memory of the control module. Malfunctions can then be identified using the VAG1551 or VAG1552 scan tools.

Ultrasonic interior monitoring On Board Diagnostic (OBD), initiating

Requirements

- Fuse OK according to wiring diagram
- VAG1551 Scan Tool (ST) connected ⇒ [page 01-1](#)
- Anti-theft system not armed

Notes:

- ◆ *If the display remains blank, check VAG1551 voltage supply according to wiring diagram.*
- ◆ *The scan tool HELP button can provide additional operating instructions.*
- ◆ *The → button is used to advance through the program sequence.*
- ◆ *If an incorrect entry is made, press the -C- button to escape.*

01-111

- Switch ignition on.
- Switch printer on by pressing PRINT button (indicator lamp in button lights up).
- Press button -1- to select "Rapid data transfer" operating mode 1.

Rapid data transfer **HELP**
Insert address word XX

⏮ Indicated on display

Address word for interior monitoring: 45

- Press buttons -4- and -5- to insert "Int. Monitoring" address word 45.

Rapid data transfer **Q**
45 - Int. Monitoring

⏮ Indicated on display

- Press -Q- button to confirm input.

4B0951173 Int. Monitoring D00 →
Coding 00101 WSC 06812

⏮ Indicated on display after about 5 seconds

- Press → button.

Note:

A list of available functions is printed out when the HELP button is pressed.

On Board Diagnostic (OBD) functions

The following functions are possible:

01 - Check Control Module Versions ⇒ [page 01-123](#)

02 - Check DTC Memory ⇒ [page 01-113](#) .

03 - Output Diagnostic Test Mode ⇒ [page 01-124](#) .

05 - Erase DTC Memory ⇒ [page 01-137](#) .

06 - End Output ⇒ [page 01-139](#) .

07 - Code Control Module ⇒ [page 01-131](#) .

08 - Read Measuring Value Block ⇒ [page 01-133](#) .

10 - Adaptation ⇒ [page 01-135](#) .

Check DTC Memory (scan tool function 02)

Note:

The DTC display information is updated only when initiating the On Board Diagnostic (OBD) or "Erase DTC Memory" function 05.

- Switch printer on by pressing PRINT button (indicator lamp in button lights up).

Carrying out "Check DTC Memory" function 02

Rapid data transfer **HELP**
Select function XX



Indicated on display

- Press buttons -0- and -2- to select "Check DTC Memory" function 02.

Rapid data transfer **Q**
02 - Check DTC Memory



Indicated on display

- Press -Q- button to confirm input.

X DTC recognized



Display indicates the number of stored malfunctions.

The stored malfunctions are shown and then printed in series.

- Using malfunction print-out, refer to DTC table and repair malfunctions
⇒ [page 01-115](#) .

01-114

No DTC recognized



If the message "No DTC recognized" is displayed, the program can be returned to the starting point by pressing the → button.

Rapid data transfer

HELP

Select function XX



Indicated on display

If something else is displayed:

⇒ *Scan tool operating instructions*

- Erase DTC Memory (function 05) ⇒ [page 01-137](#) .
- End Output (function 06) ⇒ [page 01-139](#) .
- Switch ignition off and Disconnect VAG1551 Scan Tool (ST) from Data Link Connector (DLC).

Diagnostic Trouble Code (DTC) table, interior monitoring

Notes:

- ◆ *The following table lists all the DTCs that can be recognized by the control module for interior monitoring and printed out by the VAG1551 Scan Tool (ST). The DTCs are listed in order according to their 5-digit numbers.*
- ◆ *DTC 5-digit numbers appear only on the print-out from the scan tool.*
- ◆ *Before replacing a component shown as malfunctioning, check wiring and connections to the component as well as the Ground (GND) connections according to the relevant wiring diagram.*
- ◆ *When a repair has been completed, the system should be armed and then disarmed. Then check and erase DTC memory using the VAG1551 Scan Tool (ST).*
- ◆ *DTC memory records all static and sporadic malfunctions. When a malfunction occurs, it is first identified as a static malfunction. If it does not occur again it is registered as a sporadic malfunction, and the letters "/SP" appear at the right of the display.*
- ◆ *After system is armed, all existing malfunctions are automatically re-classified as sporadic malfunctions and will only be registered as static malfunctions if they still occur after testing.*
- ◆ *Sporadic malfunctions which no longer occur after 50 driving cycles are erased automatically.*
- ◆ *The three digit malfunction type number appearing next to the DTC is a data code which may be disregarded.*

01-116

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01377 Left Ultra-Sonic Sensor for ATW-G170 ♦ Short circuit to B+ ♦ Open circuit/Short circuit to Ground ♦ Incorrect Signal	♦ Short circuit between -G170- and control module -J347- ♦ -G170- faulty ♦ Open circuit in wiring between -G170- and control module -J347- ♦ -G170- faulty ♦ Malfunctions during activation of ultrasonic interior monitoring	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace -G170-. ⇒ Repair Manual, Body Interior, Repair Group 70 - Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace -G170-. ⇒ Repair Manual, Body Interior, Repair Group 70 - Perform function test ⇒ page 01-128 .

DTC	Possible cause	Corrective action
VAG 1551 scan tool display 01378 Right Ultra-Sonic Sensor for ATW-G171 ◆ Short circuit to B+	◆ Short circuit between -G171- and control module for ultra-sound sensors -J347- ◆ -G171- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace -G171-. ⇒ <u>Repair Manual, Body Interior, Repair Group 70</u>
◆ Open circuit/Short circuit to Ground	◆ Open circuit in wiring between -G171- and control module for ultra-sound sensors -J347- ◆ -G171- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace -G171-. ⇒ <u>Repair Manual, Body Interior, Repair Group 70</u>

◆ Incorrect Signal	◆ Malfunctions during activation of ultrasonic interior monitoring	- Perform function test ⇒ page 01-128 .
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01-118

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01379 Interior Monitor Switch-E183 ♦ Short circuit to Ground 1)	♦ Wiring malfunction between switch for passenger compartment monitoring -E183- and control module for ultra-sound sensors -J347- ♦ -E183- faulty	- Repair wiring according to wiring diagram. ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace -E183-. ⇒ Repair Manual, Body Interior, Repair Group 68
01380 Alarm Via ATW Sensor rl	♦ Break in attempt at left-rear side window or after a function test ♦ False alarm	- Erase DTC memory. - Perform function test ⇒ page 01-128 . - Adapt sensitivity of sensors ⇒ page 01-135 .
01381 Alarm Via ATW Sensor rr	♦ Break in attempt at right-rear side window or after a function test ♦ False alarm	- Erase DTC memory. - Perform function test ⇒ page 01-128 . - Adapt sensitivity of sensors ⇒ page

	01-135 .
1) A malfunction is stored if the Ground is connected for more than 1 minute.	

01-119

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01382 Alarm Via ATW Sensor fl	◆ Break in attempt at left-front side window or after a function test ◆ False alarm	- Erase DTC memory. - Perform function test ⇒ page 01-128 . - Adapt sensitivity of sensors ⇒ page 01-135 .
01383 Alarm Via ATW Sensor fr	◆ Break in attempt at right-front side window or after a function test ◆ False alarm	- Erase DTC memory. - Perform function test ⇒ page 01-128 . - Adapt sensitivity of sensors ⇒ page 01-135 .

01-120

V.A.G 1551 Scan Tool display	Possible cause	Corrective action
01384 1) Alarm via glass break sensor (sensor for broken window glass rear left -G183-; sensor for broken window glass rear right -G184- and conductor loop for rear window heater)	◆ Short circuit or open circuit in harness connectors or in wire connections between glass break sensors and rear window heater to control module for ultra-Sound sensors - J347- ◆ ATS was triggered by a break-in attempt via one of the side windows or the rear window. ◆ Conductor loop in one of the side windows or rear window has an open circuit ◆ False alarm	- Erase DTC memory - Repair wiring according to wiring diagram ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Replace side window with the interrupted conductor loop ⇒ Repair Manual, Body Exterior; Repair Group. 64; Side window Avant, removing and installing - Replace rear window with the interrupted conductor loop ⇒ Repair Manual, Body Exterior; Repair Group. 64; Rear window Avant, removing and installing

¹⁾ Only for Avant

01-121

V.A.G 1551 Scan Tool display	Possible cause	Corrective action
01403 1) Glass break sensors rear (sensor for broken window glass rear left -G183-; sensor for broken window glass rear right -G184- and conductor loop for rear window defroster)	◆ A short circuit or an open circuit occurs in the harness connectors or in the wire connections between glass break sensors and rear window heater to control module for ultra-sound sensors -J347- when setting ATS. ◆ A conductor loop of one of the side windows or the rear window is interrupted during setting of the ATS	- Erase DTC memory - Repair wiring according to wiring diagram ⇒ <i>Electrical Wiring Diagrams, Troubleshooting & Component Locations binder</i> - Check conductor loop in side windows and replace side window if necessary ⇒ Repair Manual, Body Exterior; Repair Group. 64; Side window Avant, removing and installing - Check conductor loop in rear window and replace rear window if necessary ⇒ Repair Manual, Body Exterior; Repair Group. 64; Rear window Avant, removing and installing
65535		

Control Module Malfunctioning	- Replace control module.
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¹⁾ Only for Avant

01-122

Interior monitoring function test

- Open side window approx. 10 cm.
- Switch ignition off and remove ignition key.
- Close all doors.
- Lock vehicle, which will set the anti-theft warning system and the interior monitoring.
- Wait 30 seconds until all warning lamps in door trim blink slowly in 2 second intervals ($f = 0,5$ Hz).
- Insert hand through window opening and hold in proximity of sensor.
- If the interior monitoring is OK, alarm will be triggered. An entry into DTC memory of control module for central locking "1370; alarm via interior monitoring" as well as to ultra-sound control module "alarm via sensor for ATS, fl, fr, rl, rr".
- Switch off alarm by unlocking vehicle.
- DTC must be checked and erased in DTC

memory of the respective control module

01-123

Check Control Module Versions (scan tool function 01)

- Press buttons -0- and -1- to select "Check Control Module Versions" function 01.

Rapid data transfer Q
01 - Check Control Module Versions

➤ Indicated on display

- Press -Q- button to confirm input.

4B0951173 Interior monitoring. D00 ➡
Coding 00101 WSC 06812

➤ Indicated on display

Explanation of display

- ◆ 4B0951173: Part No. of control module
- ◆ Interior monitoring: system identification and variation
- ◆ D00: software version
- ◆ Coding 00101: coding ⇒ [page 01-131](#)
- ◆ WSC 06812: dealership number

- The program can be returned to the starting point by pressing the ➡ button.

Rapid data transfer HELP
Select function XX

➤ Indicated on display

01-124

Output Diagnostic Test Mode (scan tool function 03)

Notes:

- ◆ *The Output Diagnostic Test Mode may only be performed with the vehicle stationary and the engine not running.*
- ◆ *Any malfunctions identified by the Output Diagnostic Test Mode must be checked and repaired.*

Performing output Diagnostic Test Mode (DTM):

Rapid data transfer HELPSelect function XX



Indicated on display:

- Press buttons -0- and -3- to select "Output Diagnostic Test Mode (DTM)" function 03.

Rapid data transfer Q03 - Output Diagnostic Test Mode



Indicated on display:

- Press -Q- button to confirm input.

The output DTM activates the following elements in sequence:

- ◆ Warning lamps next to door locking button on driver-side or passenger-side door

- ◆ An anti-theft warning system alarm
- ◆ Wiring for voltage supply to the ultra-sound sensors
- ◆ Wiring for pulse signal to the ultra-sound sensors

01-125**Note:**

No "ATS alarm" can be triggered via this output Diagnostic Test Mode (DTM). To trigger a "ATS alarm", perform the actuator test via the control module for central locking ⇒ [page 01-91](#) or a function test ⇒ [page 01-122](#) .

Carrying out "Output Diagnostic Test Mode" function 03

- Press buttons -0- and -3- to select "Output Diagnostic Test Mode" function 03.

Rapid data transfer 
03 - Output Diagnostic Test Mode



Indicated on display

- Press -Q- button to confirm input.

Output Diagnostic Test Mode 
Alarm System Indicator Light -K95



Indicated on display

Warning lamps next to the door locking button at the driver-side or passenger-side door are activated.

- Press  button.

Output Diagnostic Test Mode 
Create active alarm



Indicated on display

The control module sends an alarm signal to the anti-theft system control module for a signal test ⇒ [page 01-128](#) .

- Press  button.

Output Diagnostic Test Mode 
Voltage supply wire



Indicated on display

The control module sends a constant voltage of 8 V to test the wiring ⇒ [page 01-129](#) .

- Press  button.

01-127

Output Diagnostic Test Mode 
Wire for cycle signal

◀ Indicated on display

The control module sends a constant voltage of 5 V to test the wiring ⇒
[page 01-130](#) .

- Press → button.

Output Diagnostic Test Mode 
END

◀ Indicated on display

- Press → button.

The program is now back at its starting point.

Rapid data transfer **HELP**
Select function XX

◀ Indicated on display

Testing alarm signal

- Switch ignition off and remove ignition key.
- Connect VAG1551 Scan Tool (ST) (⇒ [page 01-1](#)), and press buttons -4- and -5- to select "Int. Monitoring" address word 45.
- Close all doors and open one side window.
- Lock vehicle by reaching through open window. The anti-theft system horn confirms this, but warning lamps do not light up.
- Wait 30 seconds until anti-theft system is armed.
- Perform Output Diagnostic Test Mode (⇒ [page 01-124](#)) and select control element test "Create active alarm."

Notes:

- ◆ *It is also possible to test the alarm activation signal without using the VAG1551 Scan Tool (ST). To do this, carry out the first, third, fourth and fifth procedure steps listed above.*

- ◆ *The independent repair shop and the customer can thereby test the functional capability of the ultrasonic interior monitoring system.*

Output Diagnostic Test Mode



Create active alarm



Indicated on display

Specification: anti-theft system (turn signals and anti-theft horn) is triggered.

01-129

- Shut off alarm by unlocking vehicle.
- End Output Diagnostic Test Mode (DTM).
- Initiate On Board Diagnostic (OBD) for anti-theft system.
- Erase DTC memory ⇒ [page 01-137](#) .

Checking power supply wiring

- Remove both ultra-sound sensors.

⇒ [Repair Manual, Body Interior, Repair Group 70, B-pillar trim , removing and installing](#)

- Disconnect electronic harness connectors.
- Perform Output Diagnostic Test Mode (⇒ [page 01-124](#)) and select output test "Power supply wiring."

Output Diagnostic Test Mode



Power supply wiring



Indicated on display

- Using multimeter (Fluke 83 or equivalent), measure voltage at wiring harness connector between terminal 2 (B+) and terminal 3 (GND).

Specification: 8 V

- End output Diagnostic Test Mode (DTM).
- Install ultra-sound sensors again
- Erase DTC memory (function 05) ⇒ [page 01-137](#) .
- End output (function 06) ⇒ [page 01-139](#) .

Checking wiring for pulse signal

- Remove both ultra-sound sensors.

⇒ [Repair Manual, Body Interior, Repair Group 70, B-pillar trim , removing and installing](#)

- Disconnect electronic harness connectors.
- Perform Output Diagnostic Test Mode (DTM) (⇒ [page 01-124](#)) and select control element test "Signal pulse wire."

Output Diagnostic Test Mode



Signal pulse wire



Indicated on display

- Using multimeter (Fluke 83 or equivalent), measure voltage at wiring harness connector between terminal 1 (pulse signal) and terminal 3 (GND).

Specification: 5 V

- End Output Diagnostic Test Mode (DTM).
- Re-install ultra-sound sensors.
- Erase DTC memory (function 05) ⇒ [page 01-137](#) .
- End Output (function 06) ⇒ [page 01-139](#) .

01-131

Code Control Module (scan tool function 07)

This function can be used to code the interior monitoring as follows:

- ◆ Vehicle type: Audi A4
- ◆ Arming mode of anti-theft system: dynamic (m.y. 1997), or static (as of m.y. 1998)
- ◆ Body version: Sedan/Avant

Notes:

- ◆ *The coding adjusts the control module for ultra-sound sensors -J347- to meet the specific requirements of the particular model version and anti-theft alarm system.*
- ◆ *The coding table gives only the coding applicable to the Audi A4.*

Carrying out "Code Control Module" function 07

Rapid data transfer

HELP

Select function XX



Indicated on display

- Press buttons -0- and -7- to select "Code Control Module" function 07.

Rapid data transfer Q
07 - Code Control Module



Indicated on display

- Press -Q- button to confirm input.

01-132

Code Control Module

Enter code number XXXXX (0-32000)



Indicated on display

- Enter code number:

Coding: 00101

00 Place holders, disregard

1 Audi A4

0 Arming mode static

1 Sedan

2 Avant

Code Control Module

Q

Enter code number 00101 (0-32000)



- Indicated on display

- Press -Q- button to confirm input.

4B0951173 Interior monitoring D02

Coding 00101 WSC 06812



Indicated on display

- End coding by pressing button.

Rapid data transfer

HELP

Select function XX



Indicated on display

- Press buttons -0- and -6- to select "End Output" function 06.
This will end the function.

Rapid data transfer

Q

06 - End Output



Indicated on display

- Press -Q- button to confirm input.

Read Measuring Value Block (scan tool function 08)

Carrying out "Read Measuring Value Block" function 08

Rapid data transfer **HELP**
Select function XX



Indicated on display

- Press buttons -0- and -8- to select "Read Measuring Value Block" function 08.

Rapid data transfer **Q**
08 - Read Measuring Value Block



Indicated on display

- Press -Q- button to confirm input.

Read Measuring Value Block
Input display group number XXX



Indicated on display

- Press buttons -0-, -0- and -1- to input display group number 1 (001).
- Press -Q- button to confirm input.

The selected measuring value block is now indicated in standard format.
Evaluation ⇒ [page 01-134](#) .

Read Measuring Value Block, overview

Display group 001

Indicated on Display	Display value	Identification
Read Measuring Value Block 1 1 2 3 4	0100 1)	1 = switch positions
	100% 1)	2 = sensitivity of the sensors
		3 = not assigned
		4 = not assigned

1) Example of display.

Display value table

1	2
Switch for Int. Monitoring: : pressed = 1, not pressed = 0	50 ... 100% 3)
Driver-side door contact switch : driver-side door open = 1, driver-side door closed = 0 : armed = 1, not armed = 0	
Anti-theft warning system: : present = 1, not present = 0	
Glass breakage system 2):	

2) Avant only.

3) Refer to "Adaptation" function 10 ⇒ [page 01-135](#) .

Adaptation (scan tool function 10)

The following changes can be implemented and saved using the adaptation function:

- ◆ Sensitivity settings of the ultra-sound sensors can be set so that the sensors react with less sensitivity.

Carrying out "Adaptation" function 10

Rapid data transfer HELP
Select function XX



Indicated on display

- Press buttons -1- and -0- to select "Adaptation" function 10.

Rapid data transfer Q
10 - Adaptation



Indicated on display

- Press -Q- button to confirm input.

Adaptation
Insert channel number XX



Indicated on display

- Press buttons -0- and -1- to insert channel number 1.

Adaptation Q
Channel display 1



Indicated on display

- Press -Q- button to confirm input.

01-136

Channel 1 Adaptation 100 

Sensitivity in %  - 1 3- 

◀ Indicated on display (sensitivity of sensors is displayed: e.g. 100%)

Note:

The factory adjusted maximum sensitivity of the ultra-sound sensors is designated as 100%. The sensor sensitivity can be reduced to 50 %.

- Press → button.

Channel 1 Adaptation 100

Input adaptation value XXXXX

◀ Indicated on display

- Enter sensitivity value (e.g. 75% = 00075).

Channel 1 Adaptation 100 Q

Input adaptation value 00075

◀ Indicated on display

- Press -Q- button to confirm input.

Channel 1 Adaptation 75 Q

Sensitivity in % (-1 3- 

◀ Indicated on display

- Press -Q- button to confirm input.

Channel 1 Adaptation 75 Q

Store changed value?

◀ Indicated on display

- Press -Q- button to confirm input.

Channel 1 Adaptation 75 

Changed value is stored

◀ Indicated on display

- Press → button to end adaptation procedure for sensitivity.

Rapid data transfer HELP

◀ Indicated on display

Insert address word XX

01-137

Erase DTC Memory (scan tool function 05)

Note:

If DTC memory cannot be erased, check DTC memory again and repair malfunctions.

Requirements

- DTC memory checked
- All malfunctions repaired

After successfully checking DTC memory:

Carrying out "Erase DTC Memory" function 05

Rapid data transfer HELP
Select function XX



Indicated on display

- Press buttons -0- and -5- to select "Erase DTC Memory" function 05.

Rapid data transfer Q
05 - Erase DTC Memory



Indicated on display

- Press -Q- button to confirm input.

Rapid data transfer →
DTC memory is erased!



Indicated on display

DTC memory is now erased.

- Press → button.

Rapid data transfer **HELP**
Select function XX



Indicated on display

01-138

Notes:**Attention!**

DTC Memory was not interrogated

◆ *This message indicates an error in the test sequence.***Rapid data transfer**

DTC Memory was not interrogated

◆ *This message indicates an error in the test sequence.*

Adhere exactly to the test sequence: first check DTC memory and, if necessary, repair malfunctions, then erase DTC memory.

After erasing DTC memory carry out function 06 "End Output" then switch ignition off and on again and check DTC memory again.

01-139

End Output (scan tool function 06)

Carrying out "End Output" function 06

Rapid data transfer HELP
Select function XX



Indicated on display

- Press buttons -0- and -6- to select "End Output" function 06.

Rapid data transfer Q
06 - End Output



Indicated on display

- Press -Q- button to confirm input.

Rapid data transfer HELP
Insert address word XX



Indicated on display

- Switch ignition off.
- Disconnect VAG1551 Scan Tool (ST) from Data Link Connector (DLC).