01-11

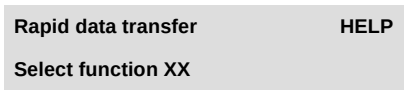
Erase DTC Memory (function 05), End Output (function 06)

Requirements

- DTC memory was checked

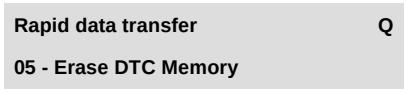
1. Erase DTC Memory (function 05)

- Press → button.



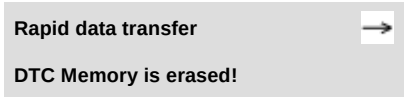
Indicated on display:(Function selection screen)

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



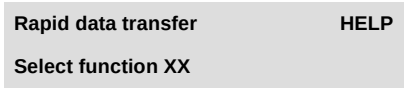
Indicated on display:

- Press -Q- button to confirm input.



Indicated on display:

- Press → button.



Indicated on display:(Function selection screen)

01-12

Notes:

Attention!
DTC memory is not interrogated

- *If this is displayed, the check sequence has not been been carried out.*
- *Follow test sequence exactly: First check DTC memory, then erase it.*

2. End Output (function 06)

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

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:

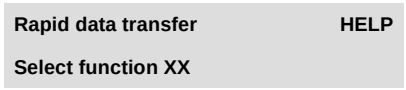
- Switch off ignition.
- Disconnect harness connector for the VAG1551 scan tool
- Switch on ignition

ABS warning light -K47- must go out after approx. 2 seconds.

01-13

Selecting functions

The communication link was established. The control module version has been checked and the → button was pressed.



Indicated on display:(function selection, for example 02 "Check DTC Memory")

It is now possible to select one of the functions listed below. Start the troubleshooting procedure using the "Check DTC Memory" function (02).

- 01 - Check Control Module Version
- 02 - Check DTC Memory
- 03 - Output Diagnostic Test Mode (DTM)
- 04 - Basic Setting
- 05 - Erase DTC Memory
- 06 - End Output
- 07 - Code Control Module
- 08 - Read Measuring Value Block
- 10 - Adaptation
- 11 - Login Procedure

01-14

Comprehensive descriptions of how to use the functions "Erase DTC Memory" and "End Output" are found in the next section.

Descriptions of how to use the other functions are found in the relevant sections of this Repair Manual.

When a function has been completed, press the → button to return to the beginning of the troubleshooting procedure ("Selecting function").

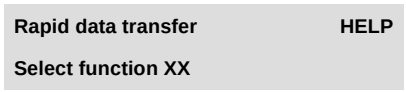
01-15

Erase DTC Memory (function 05)

Requirements

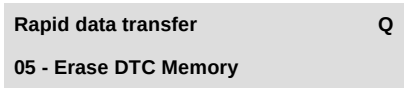
- DTC memory was checked

- Press → button.



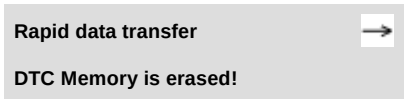
Indicated on display:

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



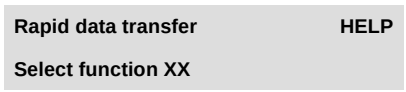
Indicated on display:

- Press -Q- button to confirm input.



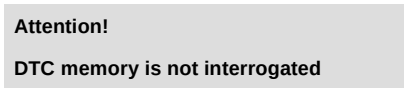
Indicated on display:

- Press → button.



Indicated on display:

Notes:



- *If this is displayed, the check sequence has not been been carried out.*
- *Observe test sequence exactly. Check DTC memory first and erase it within the same diagnostic cycle.*

01-16

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 **Enter address word XX**

Indicated on display:

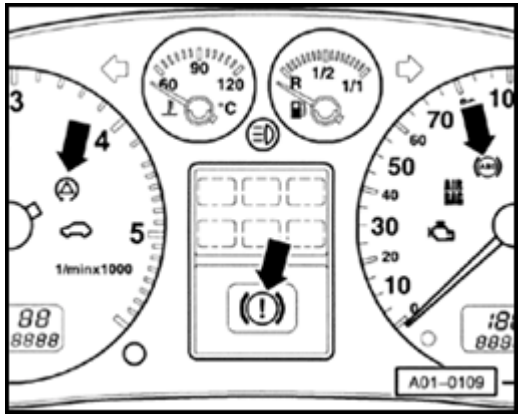
- Switch ignition off.
- Disconnect scan tool.

01-17

Safety precautions and troubleshooting basics

- ABS/EDL/ASR and ESP are vehicle safety systems; working on these systems requires specific system knowledge.

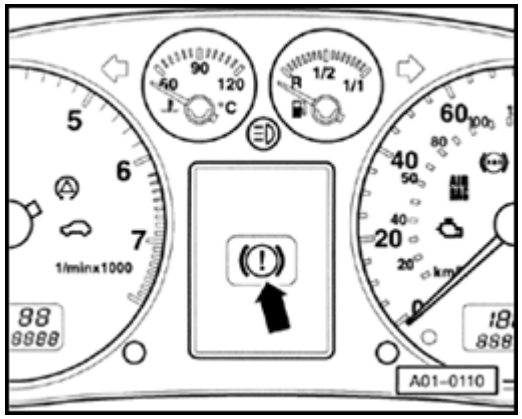
- There are two different versions of instrument cluster: with or without Driver Information System (DIS).



Instrument cluster without DIS

- If On Board Diagnostic (OBD) has detected a malfunction in the system, it indicates the malfunction by lighting up warning lamps when ignition is switched on. The warning lamps are located in the instrument cluster. This appears in both versions, with or without DIS. The instrument cluster without DIS displays the ABS warning light -K47- (right arrow), the warning light for brake system -K118- (center arrow, red symbol for "brake system malfunction") and the traction control indicator light -K86- (left arrow). For additional information, see the section titled "Overview of indicator lamp functions".

01-18



Instrument cluster with DIS

- For DIS, the warning light for brake system -K118- "brake system malfunction" appears in the display.
- If the ABS warning light -K47 and the red symbol for "Brake system malfunction" are not lit, but the brake system is not functioning properly, check for malfunctions in the mechanical/hydraulic brake system components.

⇒ *Repair manual, Brake System, Repair Group 45; ESP component overview*

Corrective actions

If a malfunction or problem has been detected or reported, perform guided troubleshooting:

- First switch on the ignition, and note whether the indicator lamps light up. The table in the section "Overview of indicator lamp functions" for the relevant system facilitates an initial diagnosis.

- Fulfill test requirements.

- Connect the VAG1551 Scan Tool (ST) and select the address word 03 "Brake Electronics".

- Check the control module version ⇒ Parts Catalog and press the →button.

- Check DTC memory. If a DTC is stored: Note the DTC and erase DTC memory ⇒ page 01-15 .

- End data transfer using the "End Output" function ⇒ page 01-16 .

- Repair the malfunction with the help of the DTC table. Select again the address word 03 "Brake Electronics". Check and erase DTC memory.

- End data transfer using the "End Output" function. Disconnect VAG1551 Scan Tool (ST).

- Make sure all harness connectors are connected and engaged. Perform a road test. The indicator lamps must not light up during the drive. If the indicator lamps light up during the road test, repeat the troubleshooting procedure.

Note:

If the control module connector is disconnected during the drive, an unfounded DTC may be stored in the memory of another control module. The brake system will only be partially functional. Because brake pressure at the rear wheels is no longer regulated vie Electronic Brake Distribution (EBD), the rear wheels tend to brake excessively. This causes the rear of the vehicle to break loose. Driving the vehicle presents the risk of accident.

- Always switch off ignition before carrying out installation or repair work.

01-21

- Only replace a malfunctioning component if you are certain that all electrical wires to this component are functioning properly. The lines must work properly and be capable of carrying all signals without any problems. Check the lines for the following:

  - Corrosion or loose connections in the connectors or Ground straps. If there are bent, broken, or corroded contacts on the connectors, replace the contacts using VAS1978 wiring harness repair kit.

  - Open circuit in wiring

  - Short circuits to B+ or Ground (GND)

⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations*

- Welding work performed with electrical welding equipment can affect the ABS/ESP system.

01-22

Test requirements

- Vehicle equipped with approved wheel and tire sizes, which must be the same on all four wheels. All tire inflation pressures checked according to specification.
- The mechanical/hydraulic components of the brake system are OK. Hydraulic connections and lines are sealed properly (visual check at hydraulic unit, brake calipers, wheel cylinders, tandem master brake cylinder).
- Wheel bearings and wheel bearing play OK
- Wheel speed sensors installed correctly

⇒ *Repair manual, Brake System, Repair Group 45*

- Supply voltage OK (at least 10.0 volts).
- Harness connector is properly connected at ABS control module -J104-, locking mechanism is engaged.

- The OBD sequence can only be started with the vehicle stationary and the ignition switched on (or with the engine running). It is not possible to initiate On Board Diagnostic (OBD) once wheel speed has reached 2.75 km/h.

01-23

- While testing the ESP system, make sure that the vehicle's electrical system is not subjected to electromagnetic interference; keep the vehicle away from equipment with a high current draw such as electric welding units.

WARNING!

The diagnostic will not terminate at a speed of v = > 20 km/h. Risk of accident!

01-24

Technical information required

- Valid wiring diagram

⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations*

- Installation locations of electrical components.

⇒ *Repair manual, Brake System, Repair Group 45*

- Brake mechanical information

⇒ *Repair manual, Brake System, Repair Group 46*

- Brake hydraulic information

⇒ *Repair manual, Brake System, Repair Group 47*