



Important!

Please give copies to all
your VW Technicians

Technical Bulletin

Subject: **Supplemental Diagnostic Procedures – Airbag,
(DTC) 00588 Stored in DTC Memory**

Group: **01**

Number: **00–07**

Model(s): **All except Cabrio, EuroVan**

2000 ►

Date: **Oct. 26, 2000**

Condition

Airbag warning light ON with Diagnostic trouble code (DTC) 00588 “Resistance too small (low)” for Driver’s side front airbag system stored in DTC memory.

Note:

This Technical Bulletin should be used ONLY if Technical Bulletin, Group 01 number 00-02 dated Apr. 24, 2000 (Driver’s Side Airbag On-Board Diagnostic) has been used without identifying the causal failure.

Rationale

If the airbag control module senses a problem and stores DTC 00588, it will also display either “Resistance too small” or “Resistance too large”. This diagnostic procedure applies ONLY when DTC display indicates “Resistance too small” and should not be used for diagnosing other DTC displays.

This indicates one of the following conditions:

- A short between the two wires to the Driver’s side airbag.
- An internal short in the Driver’s side airbag
- A short between the two airbag wires in the Spiral spring assembly
- A poor connection at the bottom (wiring harness side) connector of the Spiral spring.

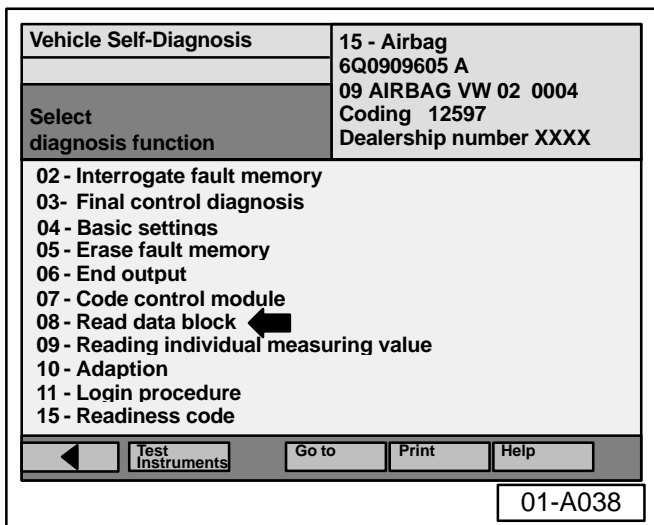
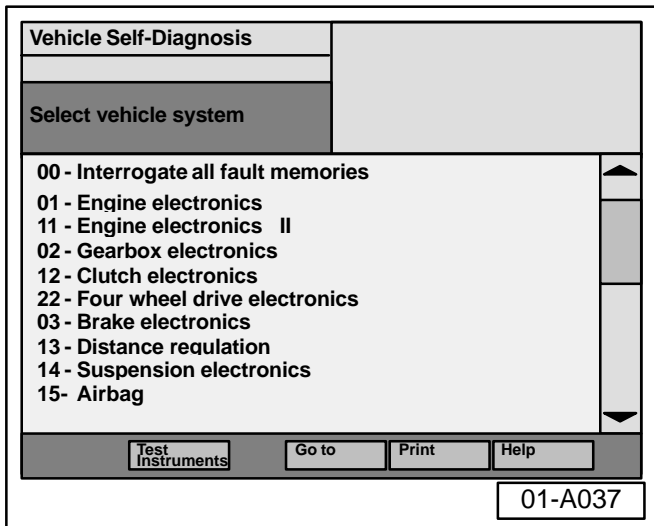
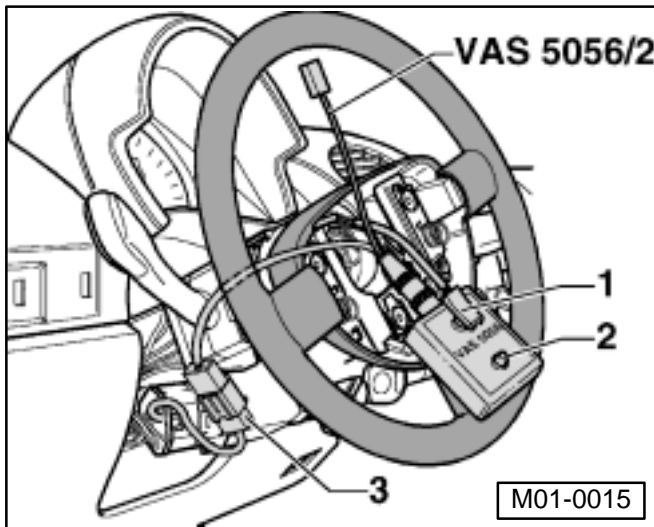
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Service

Prior to performing the following procedure:

WARNING!

When working on ANY airbag system. ALWAYS read and follow Repair Manual CAUTIONS and WARNINGS!

– Remove the Driver's side airbag (see *Driver's side airbag unit, removing and installing* in VESIS Repair Group 69.

◀ – Connect airbag igniter connector -1- of VAS 5056/2 to inert igniter #1 (simulates a good airbag unit).

Diagnosis / Testing using VAS 5051

– Connect the VAS 5051 Diagnostic tool.

– Switch ignition ON.

– From VAS 5051 Start-up screen, select "Vehicle self diagnosis".

◀ – Select vehicle system "15- Airbag".

◀ – Select Diagnosis function "08 - Read data block" (arrow).

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Vehicle Self-Diagnosis	15 - Airbag
08 - Read data block	6Q0909605 A
Enter display group max. input value = 255	15 Airbag VW5 02 0004 Coding 12597 Dealership number XXXX

16167

1	2	3
4	5	6
7	8	9
C	0	Q

Test Instruments
Go to
Print
Help

01-A039

◀ – When keypad appears, select “1” then press “Q”.

Four status checks will be shown

- Driver's side airbag status
- Passenger's side airbag status
- Driver's seat belt tensioner status
- Passenger's seat belt tensioner status

One of the following conditions will be indicated:

- ◆ CORRECT = system operating properly (see note below)
- ◀ ◆ TOO LOW = insufficient voltage drop in Driver's side airbag system (Short)
- ◆ TOO HIGH = Excessive voltage drop in Driver's side airbag system (Open)

Vehicle Self-Diagnosis	15 - Airbag
08 - Read data block	6Q0909605 A
Display Group 1	15 Airbag VW5 02 0004 Coding 12597 Dealership number XXXX

too low
correct
correct
correct

Data Block

Basic Settings

Change display group

Test Instruments
Go to
Print
Help

01-A040

The following procedure is for a Display that reads “CORRECT” or “TOO LOW” In the top row (arrow) (Driver's side airbag status).

For all other Display conditions:

- Return to Repair Manual or Technical Bulletin Group 01 number 00-02 dated Apr. 24, 2000 for additional diagnosis.

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Display (in top row) reads TOO LOW:

- Access connector at lower Spiral spring assembly by removing lower steering column trim cover (see VESIS Group 70)

While monitoring Display group 1:

- Slowly “wiggle test” lower Spiral spring connector.

If Display changes to CORRECT:

- Continue to Page 5 (Lower Spiral spring connection, repairing).

If Display continues to read “TOO LOW” during “wiggle test”:

- Return to Technical Bulletin Group 01 number 00-02 for additional diagnosis.

Display (in top row) reads CORRECT:

- Access connector at lower Spiral spring assembly by removing lower steering column trim cover (See VESIS Group 70)

While monitoring Display group 1:

- Slowly “wiggle test” lower Spiral spring connector.

If Display changes to TOO LOW:

- Continue to Page 5 (Lower Spiral spring connection, repairing).

IF Display continues to read “CORRECT”

NOTE:

The Spiral spring housing and connector are made of plastic, changes in temperature will cause them to expand or contract.

Check system again under the following conditions:

- In early morning when interior temperatures are cool.
- At mid-day when interior temperatures are hot.

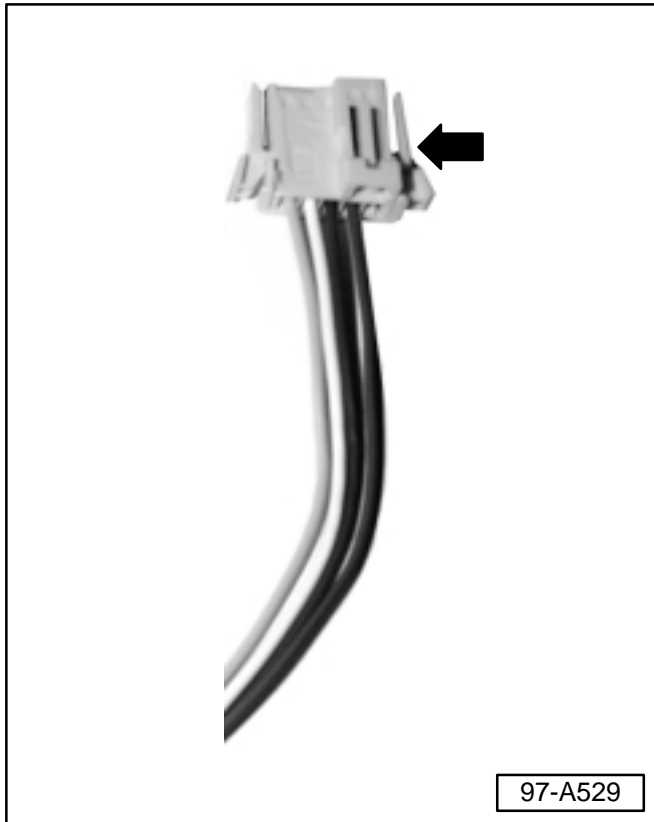
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If no fault is found and you are a Volkswagen Dealer Technician:

- Contact the Volkswagen Dealer Technician Helpline.

Lower Spiral spring connection, repairing

Tools required:

- ◆ VAS 1978 wiring repair kit
- ◆ No. 24 Crimping Die

Parts required:

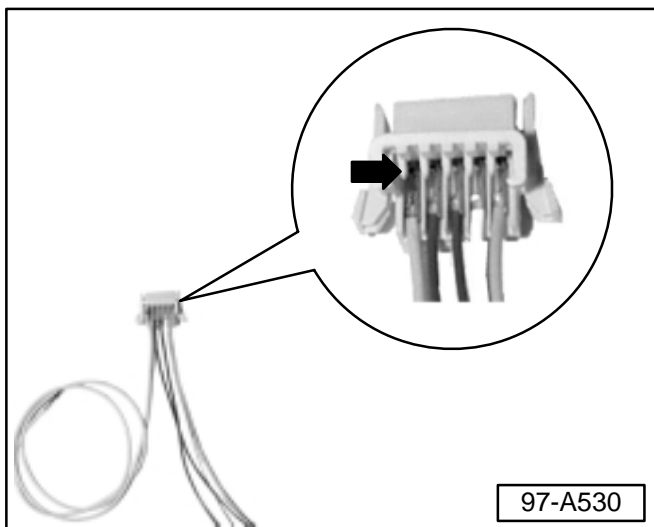
- ◆ Replacement lower Spiral spring connector (arrow) Part No: 6E0 971 582C (includes 4 wires)
- ◆ Splice connectors Part No: 111 971 941A (from VAS 1978 wiring repair kit).

Note:

For vehicles with Multi-function steering wheel an additional wire with terminal must be added into cavity 1 of the replacement lower Spiral spring connector as follows:

Replacement lower Spiral spring connector modification for vehicles with Multi-function steering wheel

- Release locking tabs on sides of connector housing and open housing.
- Insert new wire, Part No: 000 979 008A into cavity 1 (arrow) of replacement lower Spiral spring connector Part No: 6E0 971 582C.
- Close and lock connector housing.
- Cut new wire to same length as existing wiring.



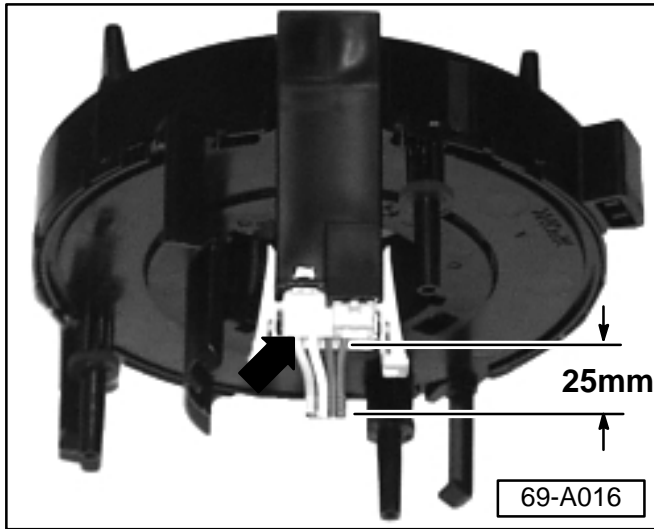
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Existing lower Spiral spring harness, preparation

Note:

Illustration shows Spiral spring removed (removal is not required for repair) and lower connector installed.

With ignition key removed and lower steering column trim cover removed:

- Disconnect lower Spiral spring connector from spiral spring.
- Cut wiring harness 25mm approx. (1 in.) from Spiral spring connector.

Note:

Keep connector to compare wire position when splicing new connector to airbag wiring harness on page 7.

- Using VAS 1978 wire strippers strip wiring harness.

Replacement Spiral spring harness, installing

WARNING!

NEVER use this repair for Spiral spring to Airbag adapter harness.

If Spiral spring to airbag adapter harness requires repair it MUST be replaced!

Using VAS 1978 No. 24 crimping die:

- Crimp Part No: 111 971 941A (splice connectors) on replacement lower Spiral spring connector 6E0 971 582C wires.

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Crimp other end of splice connectors to appropriate wires on vehicle airbag harness as follows:

Note:

For this repair only; wire splices will not be staggered as required in VAS 1978 instructions.

Because wire colors may differ between original harness and wires on replacement lower Spiral spring connector:

- Observe color and wire position in old connector.
- Splice wire from cavity 2 of new connector to harness wire previously cut from position 2 of old connector (regardless of color).
- Splice wire from cavity 3 of new connector to harness wire previously cut from position 3 of old connector (regardless of color).
- Splice wire from cavity 4 of new connector to harness wire previously cut from position 4 of old connector (regardless of color).
- Splice wire from cavity 5 of new connector to harness wire previously cut from position 5 of old connector (regardless of color).

For vehicles with Multi-function steering wheel:

- Splice wire from cavity 1 of new connector to harness wire previously cut from position 1 of old connector (regardless of color).

Using VAS 1978 heat gun:

- Shrink crimp connector insulation.

Using VAS 1978 yellow tape:

- Wrap 4 wires (5 wires for vehicles with Multi-function steering wheel) together as a single loom.
- Connect new connector to Spiral spring and route wiring to ensure they are not pulling on the connector.

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Vehicle Self-Diagnosis	15 - Airbag
08 - Read data block	6Q0909605 A
Display Group 1	15 Airbag VW5 02 0004 Coding 12597 Dealership number XXXX
correct correct correct correct	
<div style="text-align: center;"><div>Data Block</div><div>Basic Settings</div><div>Change display group ▼ ▲</div></div>	
<div>◀ Test Instruments ▶</div> <div>Go to</div> <div>Print</div> <div>Help</div>	
01-041	

- Clear any stored Diagnostic Trouble Codes.
- Retest wiring as outlined beginning Page 2.
- ◀ - Check Display group 1 again.
- Select "Go to" then select "Exit"
- Reinstall trim cover.
- ◀ - Remove VAS 5056/2.
- Reinstall Driver's side airbag (follow steps in *Driver's side airbag unit, removing and installing* in VESIS Repair Group 69).