3 Airbag

3.1 Overview - installation locations

- 1 Airbag unit, driver side
 - □ Removing ⇒ page 36
- 2 Airbag warning lamp (K75)
- 3 Airbag unit, front passenger side
 - □ Removing ⇒ page 41
 - Adapting components (locking and activating) ⇒ page 55
- 4 Diagnosis connector
 - Behind left footwell compartment
- 5 Side airbag, front passenger side
 - □ Removing ⇒ page 46
 - Adapting components (locking and activating)
- 6 Side airbag crash sensor, front passenger side
 - □ Removing ⇒ page 50
- 7 Side airbag crash sensor, driver side
 - □ Removing ⇒ page 50
- 8 Side airbag, driver side
 - □ Removing ⇒ page 46
 - Adapting components (locking and activating) <u>⇒ page 55</u>
- 9 Airbag control unit (J234)
 - □ Removing ⇒ page 45
 - □ Adapting components (coding) ⇒ page 55

2 3 5 9 8 N69-0233

3.2 Safety precautions when working on airbag

- Testing, removing, installing and repair work may only be performed by qualified personnel.
- Before working on the airbag system, disconnect the battery earth strap. No waiting time is necessary after disconnecting the battery. When the airbag system is connected to a voltage source, no person must be present inside the vehicle.
- Before picking up (touching) the airbag unit, the mechanic must electrostatically discharge him/herself. This can be done by touching a suitable metal part, for example, a water pipe, a heater pipe or a metal frame.

- Airbag units must be installed immediately after they are removed from their packaging.
- If work is interrupted, the airbag unit must be replaced in its packaging.
- Leaving airbag unit unattended is prohibited.
- Removed airbag units must be stored with the padded side facing up.
- Airbag units which have been dropped onto a hard surface or show signs of damage must not be installed in the vehicle.
- Storage and transportation are subject to laws governing explosive substances.
- Only genuine VW seat covers which have been approved for side airbags (identifiable by the airbag emblem) must be installed
- ♦ Seat protectors must be compatible with airbags.
- When backrest cover is installed, seam must be straight in vicinity of side airbag.
- All padding clips must be renewed.
- Always use genuine VW padding clips.
- If cover is damaged tears, burn holes and so on in the vicinity of the side airbag, always renew cover.

3.3 Additional safety precautions for the curtain airbag

- Always renew damaged pillar trim; never repair.
- Curtain airbags must not be kinked or twisted.
- After bodywork repairs in the vicinity of the curtain airbag, check area for weld spray droplets, deformations and abrasive areas (compare with opposite side if necessary).
- If an ignited curtain airbag is renewed, generally the moulded headlining, door seals with beading, curtain airbag guides, grab handle brackets, trim on the A, B and C-pillars and, if installed, D-pillar trim must also be renewed. If damaged, (rear) interior reading lights, roof grab handles and roof frame trim must be renewed.

3.4 Disposal of airbag units

- Non-triggered airbag units must, according to national legislation, be disposed of correctly in the original packaging. If in doubt, contact your distribution centre or importer for details.
- Used airbag units can be disposed of via commercial waste disposal.

3.5 Deactivating the airbag



WARNING

The prerequisites for deactivating one or more airbag units have been published in the "Technical Service Handbook".

In the "Technical Service Handbook 2", the "Procedure ID" or the "Technical solution number" for the deactivation of airbag units is "2000987".

ElsaWin

- → Technical solution
- → Technical service handbook
- → Technical solutions
- → Vehicle electrics
- → Function
- → Passenger protection
- → Deactivation of airbag units
- → Systems

3.6 Renewing airbag units following an accident

3.6.1 Accident involving triggering of airbag

Following the renewal of airbag units or the airbag control unit, the labels (only tear-off strips) of the new components must be stuck onto the "Registry note 2 for Airbag Systems". For registration, the "Registry note 2 for Airbag Systems" must be sent on to the responsible distribution centre or importer.

The "Registry note 2 for Airbag Systems" can be printed out of the "Technical Service Handbook":

ElsaWin

- → Technical solution
- → Technical service handbook
- → Technical solutions
- → Vehicle electrics
- → Function
- → Passenger protection
- → Deactivation of airbag units
- → Systems

In the "Technical Service Handbook 2", the "Procedure ID" or the "Technical solution number" for this procedure is "2000987".

As a matter of rule, the following components will have to be renewed following an accident where the airbag has been triggered:

- All triggered airbag units with control units and sensors.
- Supports for front passenger module if front passenger airbag was triggered.
- Coil connector with slip ring, when driver airbag has triggered.
- All seat belts with triggered belt tensioners.
- In addition, the following must also be replaced if necessary (visual check): all damaged components.

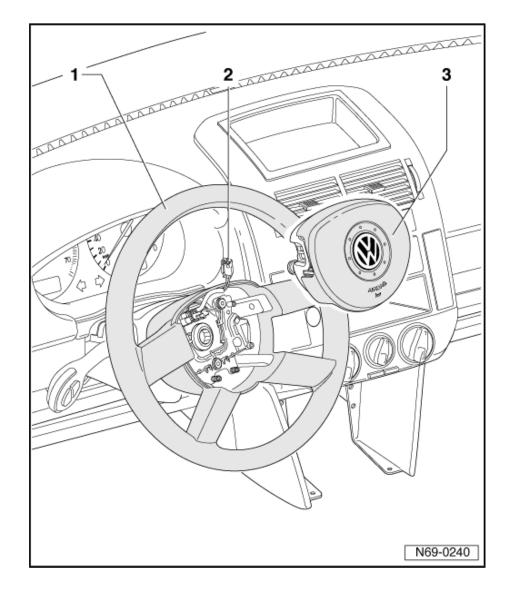
3.6.2 Accident not involving triggering of airbag

 If the airbag warning lamp (K 75) does not indicate a fault, it is not necessary to replace the airbag components. The seat belts should be checked separately.

3.7 Removing and installing driver airbag unit

3.7.1 Assembly overview

- 1 Steering wheel
- 2 Connector
- 3 Airbag unit



3.7.2 Removing



WARNING

Refer to safety precautions when working on the airbag ⇒ page 33.

Disconnect vehicle battery ⇒ Electrical system; Rep. Gr. 27;
 Battery .

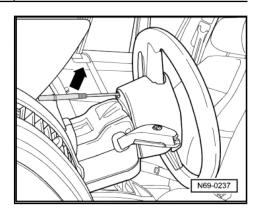
- Turn steering wheel until horizontal spokes are vertical.
- Pull out steering column completely and lock in lowest posi-
- Insert a screwdriver about 5 mm wide in hole on back of steering wheel hub.
- Press screwdriver in direction of arrow (airbag unit will be released and rises slightly out of steering wheel hub).
- Turn steering wheel back 180° and release second catch.
- Carefully pull airbag unit slightly out of steering wheel.

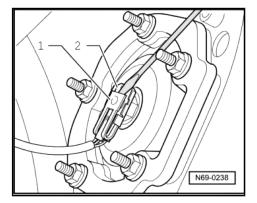


WARNING

Electrostatic discharges may result in unintentional triggering of airbag. Therefore, the mechanic must electrostatically discharge him/herself before disconnecting the igniter and earth wires. This can be done by briefly touching the body or striker plate of the door.

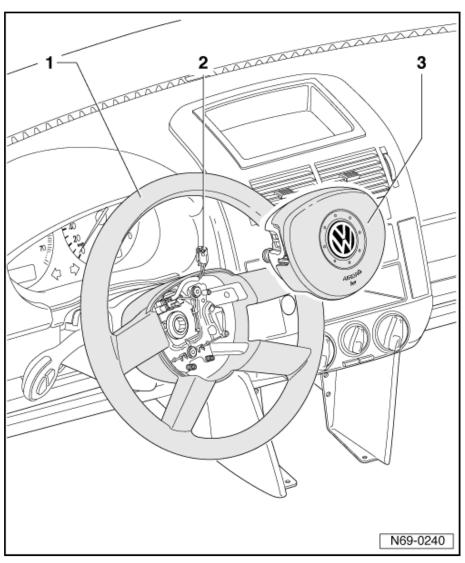
- Using a screwdriver, carefully lever out catch -1- of connector -2-.
- Separate connector -1- from airbag unit and remove airbag





3.7.3 Installing

- Join connector -2- to airbag unit -3- and engage latch.
- Set airbag unit -3- in installation position. Press in airbag unit -3- on left and right sides until it can be heard to engage.
- Check that airbag unit is engaged on left and right sides in steering wheel.



Switch ignition on.



WARNING

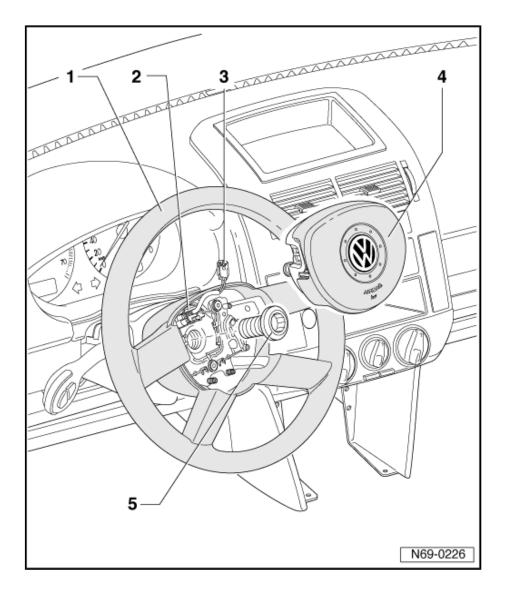
Ensure that nobody is in the vehicle.

Connect vehicle battery \Rightarrow Electrical system; Rep. Gr. 27; Battery .

Removing and installing steering wheel 3.8

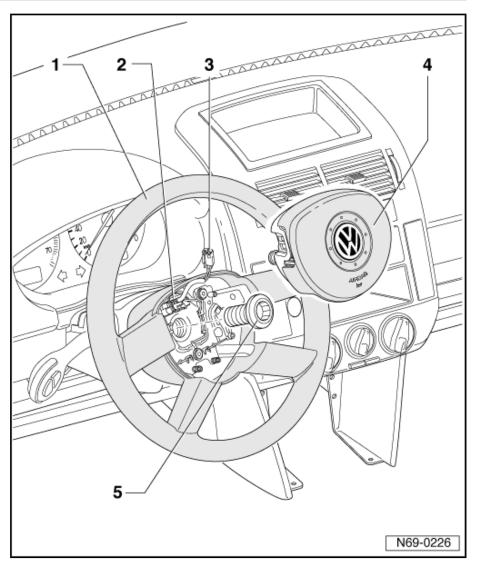
Assembly overview 3.8.1

- 1 Steering wheel
- 2 Connector
- 3 Connector
- 4 Airbag unit
- 5 Bolt
 - □ 55 Nm
 - Treated with locking compound
 - ☐ Can be used up to 5
 - Mark with a centre punch after each assembly



3.8.2 Removing

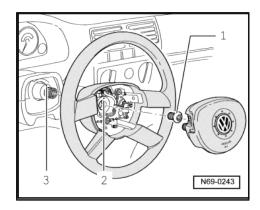
- Remove driver airbag unit ⇒ page 36.
- Turn wheels to straight-ahead position.
- Unplug connector -2- to return spring.
- Remove bolt -5-.
- Remove steering wheel -1-. Return spring remains on steering column switch.



3.8.3 Installing

 Set steering wheel on so that lines on steering wheel hub -2and punch marks on steering column -3- align.

Steering columns supplied as spare parts have no punch marks.



3.9 Removing and installing return spring with slip ring

Depending on model, the airbag coil connector and return spring with slip ring -F 138- is part of the steering column switch.

⇒ Electrical system; Rep. Gr. 94; Steering column switch

3.10 Removing and installing front passenger airbag unit

3.10.1 Removing



WARNING

Refer to safety precautions when working on the airbag *⇒ page 33* .

- Disconnect vehicle battery ⇒ Electrical system; Rep. Gr. 27; Battery .
- Remove glove compartment ⇒ page 10.



WARNING

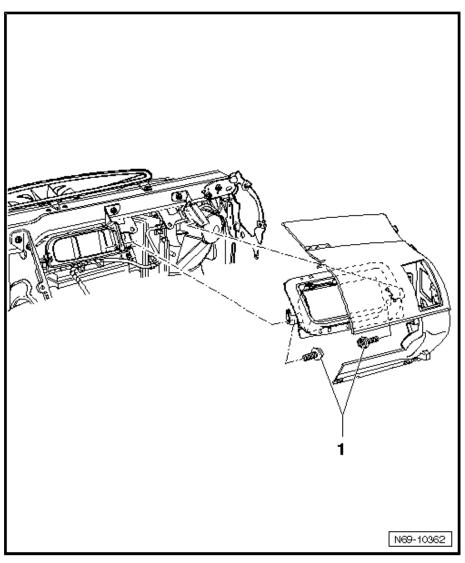
Electrostatic discharges may result in unintentional triggering of airbag. Therefore, the mechanic must electrostatically discharge him/herself before disconnecting the igniter and earth wires. This can be done by briefly touching the body or striker plate of the door.

- Disconnect wiring harness from front passenger airbag.
- Remove bolts -1- (6 Nm).



Note

For greater clarity, a section of the dash panel and the front passenger airbag are shown removed.



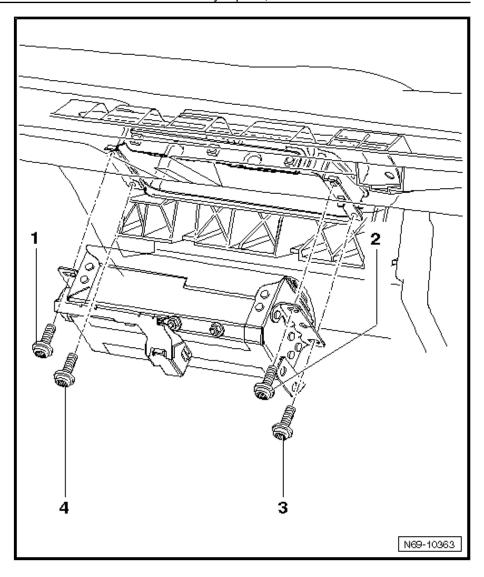
Remove bolts -1- and -2- (10 Nm).



Note

The bolts are in front, in direction of travel.

- Remove bolts -3- and -4- (10 Nm).
- Remove front passenger airbag unit -1- from dash panel.



Installing 3.10.2

- Installation is carried out in reverse order of removal.

Check whether an additional earth cable needs to be fitted in the vehicle:

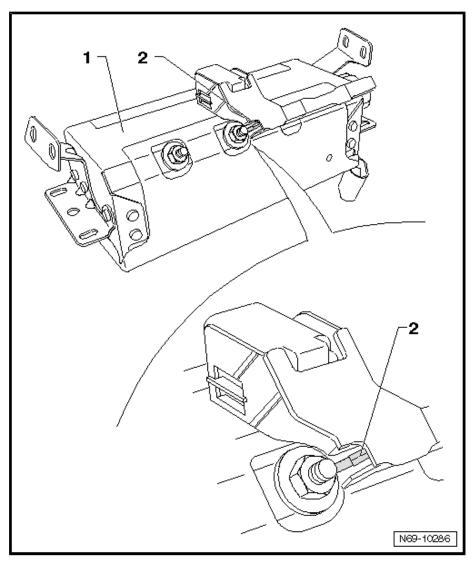


WARNING

If a front passenger airbag is renewed, an additional earth ca-ble may have to be fitted to the vehicle

Check whether an earth cable -2- is attached to the front passenger airbag housing -1-.

If the front passenger airbag does not have an earth cable, then fit an additional earth cable in the vehicle.



Routing an additional earth wire in the vehicle if the front passenger airbag does not have an earth cable



Note

For the following work use a cable (wire cross section 1 mm, length 600 mm) from the Wiring harness repair set -VAS 1978- or Wiring harness repair set -VAS 1978A- .

- Secure one end of the earth wire with the bolt -1- on the left side of the front passenger airbag.
- Route earth wire properly up to the earth pin -2- behind the airbag control unit.

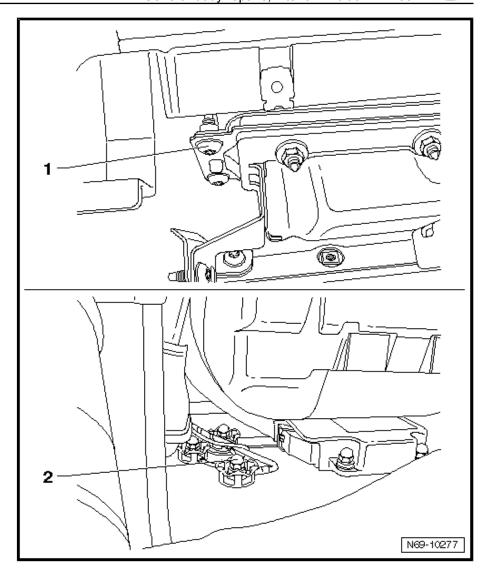


Note

If needed, extend the earth wire with the appropriate materials from Wiring harness repair set -VAS 1978- or Wiring harness repair set -VAS 1978A- .

Connect the other end of the earth wire to the earth pin.





Switch ignition on.



WARNING

Ensure that nobody is in the vehicle.

- Connect vehicle battery ⇒ Electrical system; Rep. Gr. 27; Battery .

Removing and installing airbag control 3.11 unit (J234)

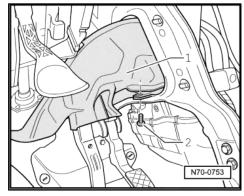


WARNING

Refer to safety precautions when working on the airbag

- Disconnect vehicle battery ⇒ Electrical system; Rep. Gr. 27; Battery .
- Remove upper part of centre console ⇒ page 6.

- Remove lower part of centre console <u>⇒ page 8</u>.
- If necessary, cut into floor covering and insulation mat near control unit bracket.
- Remove bolt -2-.
- Remove air duct -1-.



- Move bar -2- in direction of arrow and pull connector -3- out of the control unit -1-.
- Unscrew cap nuts -4- and pull control unit off studs.
- Specified torque: cap nuts -4- = 6.5 Nm.
- Installation is carried out in reverse order of removal.
- Switch ignition on.



WARNING

Ensure that nobody is in the vehicle.

- Connect vehicle battery ⇒ Electrical system; Rep. Gr. 27;
 Battery .
- If control unit is to be renewed, it must be coded. Adapting components (coding) ⇒ page 55.

3.12 Removing and installing driver and front passenger side airbag



Note

Removal and installation are described for the left side of vehicle. Follow same instructions for the right side as appropriate.

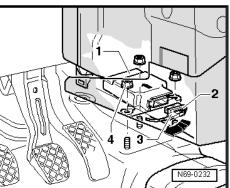
3.12.1 Removing



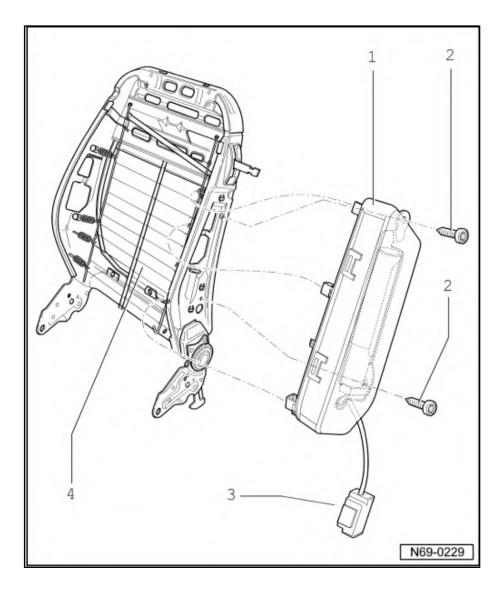
WARNING

Refer to safety precautions when working on the airbag ⇒ page 33.

- Disconnect vehicle battery ⇒ Electrical system; Rep. Gr. 27;
 Battery .
- Remove driver or front passenger seat ⇒ page 123.
- Remove seat backrest ⇒ page 131.
- Remove backrest (with parallel height adjustment)
 ⇒ page 131
- Loosen backrest cover in vicinity of airbag -1-.



- Guide connector -3- through opening in backrest padding.
- Remove bolts -2-.
- Specified torque: bolts -2- = 7 Nm.
- Pull side airbag -1- out from backrest frame -4-.



3.12.2 Installing

- Installation is carried out in reverse order of removal.
- Switch ignition on.



WARNING

Ensure that nobody is in the vehicle.

Connect vehicle battery ⇒ Electrical system; Rep. Gr. 27; Battery .

3.13 Removing and installing curtain airbag on driver and passenger side



Note

- Removal and installation of curtain airbag is described for the right vehicle side. Follow same instructions for the left side as appropriate.
- Removal and installation of curtain airbag is described for the 2-door model. Removal and installation for the 2-door can be derived from this.

3.13.1 Removing



WARNING

Refer to safety precautions when working on the airbag ⇒ page 33.

- Disconnect vehicle battery ⇒ Electrical system; Rep. Gr. 27;
 Battery .
- Switch off ignition.
- Remove upper A-pillar trims ⇒ page 81.
- Remove upper B-pillar trims. Seat belt end anchors need not be removed <u>⇒ page 86</u>.
- Unclip upper C-pillar trim from mountings in body in transition area to moulded headliner.
- 2-door ⇒ page 92
- ♦ 4-door ⇒ page 90
- Remove moulded headlining:
- ♦ Vehicles without sunroof ⇒ page 111.
- ♦ Vehicles with sunroof ⇒ page 115.

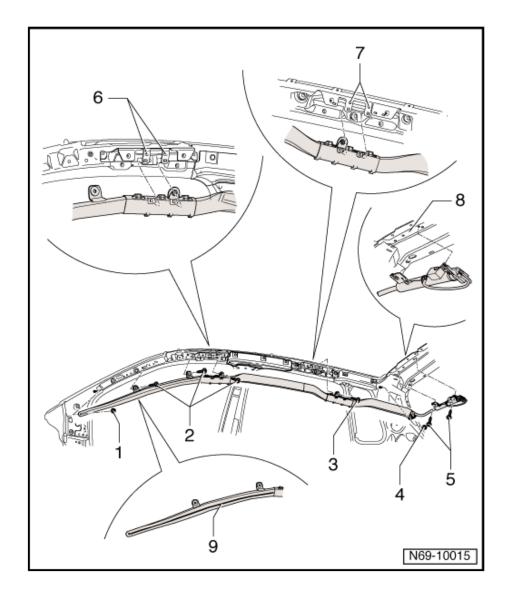


WARNING

Electrostatic discharges may result in unintentional triggering of airbag. Therefore, the mechanic must electrostatically discharge him/herself before disconnecting the igniter and earth wires. This can be done by briefly touching the body or striker plate of the door.

- Separate wiring harness from curtain airbag.
- Remove nut -1- (4.5 Nm).
- Remove the three bolts -2- (4.5 Nm).
- Remove bolt -3- (4.5 Nm).
- Remove nut -4- (4.5 Nm).
- Remove the two bolts -5- (4.5 Nm).
- Separate curtain airbag from mountings -6- in vicinity of B-pillar.

- Separate curtain airbag from mountings -7- in vicinity of C-
- Separate curtain airbag from mountings -8- in vicinity of roof cross member.



- Remove curtain airbag from vehicle through rear lid.

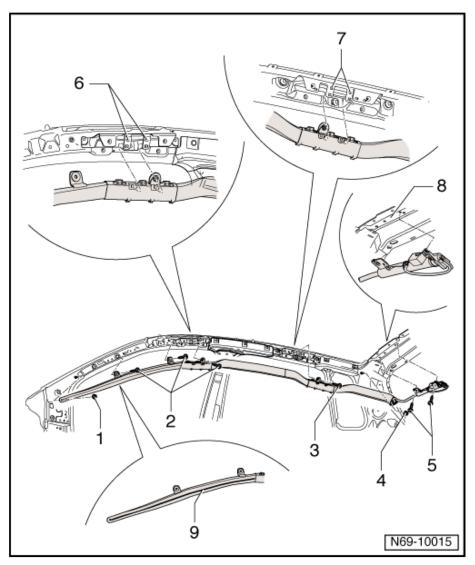
3.13.2 Installing

- Installation is carried out in reverse order of removal.



Note

During installation, identification -9- must face forwards. Reversing front and back is not permissible.



- Switch ignition on.



WARNING

Ensure that nobody is in the vehicle.

- Connect vehicle battery ⇒ Electrical system; Rep. Gr. 27;
 Battery .
- 3.14 Removing and installing crash sensor for side airbag for driver or front passenger

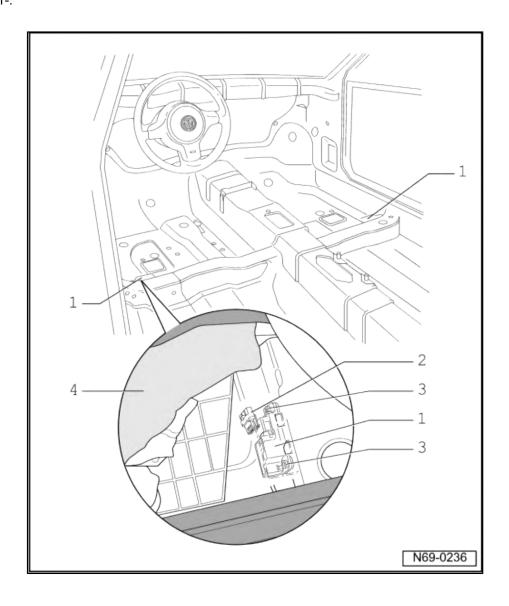
3.14.1 Removing



WARNING

Refer to safety precautions when working on the airbag ⇒ page 33.

- Disconnect vehicle battery ⇒ Electrical system; Rep. Gr. 27; Battery .
- Remove driver or front passenger seat ⇒ page 123.
- Remove sill panel moulding (4-door) ⇒ page 12.
- Remove sill panel moulding (2-door) ⇒ page 13.
- Separate floor covering -4- in vicinity of crash sensor -1-.
- Disconnect connector -2-.
- Remove bolts -3-.
- Remove crash sensor -1-.



Installing 3.14.2

- Installation is carried out in reverse order of removal.
- Switch ignition on.



WARNING

Ensure that nobody is in the vehicle.

Connect vehicle battery ⇒ Electrical system; Rep. Gr. 27;
 Battery .

3.15 Removing and installing crash sensor for right curtain airbag

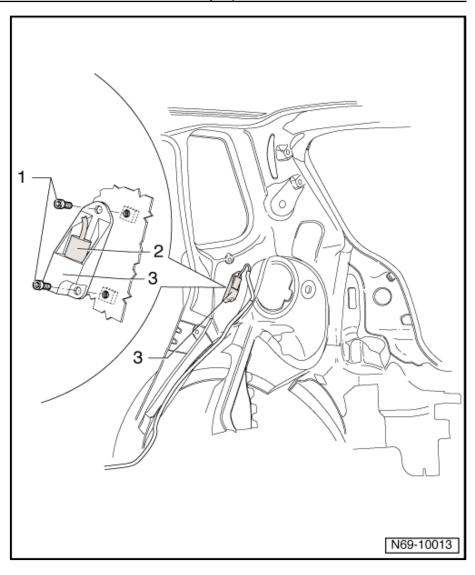
3.15.1 Removing



WARNING

Refer to safety precautions when working on the airbag ⇒ page 33.

- Disconnect vehicle battery ⇒ Electrical system; Rep. Gr. 27;
 Battery .
- Fold bench seat and backrest forwards.
- Loosen lock carrier cover in transition area to support for luggage compartment cover.
- Remove support for luggage compartment cover
 ⇒ page 100 .
- Loosen luggage side compartment trim on right in upper section of body.
- Remove the two bolts -1- (9 Nm).
- Disconnect wiring harness -2- from crash sensor -3-.



3.15.2 Installing

- Installation is carried out in reverse order of removal.
- Switch ignition on.



WARNING

Ensure that nobody is in the vehicle.

Connect vehicle battery ⇒ Electrical system; Rep. Gr. 27;
 Battery .

3.16 Removing and installing crash sensor for left curtain airbag

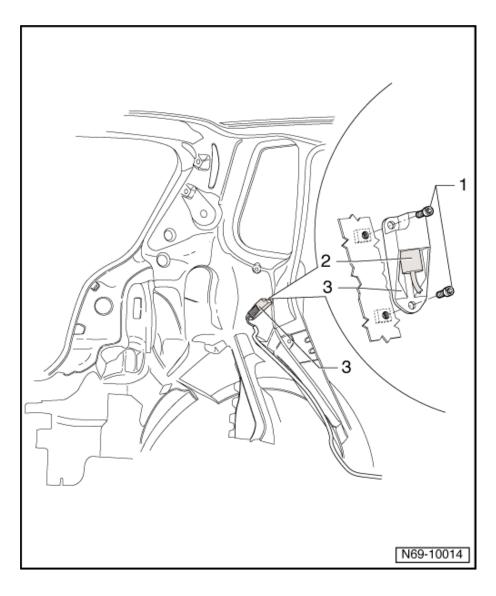
3.16.1 Removing



WARNING

Refer to safety precautions when working on the airbag ⇒ page 33.

- Disconnect vehicle battery ⇒ Electrical system; Rep. Gr. 27; Battery .
- Fold bench seat and backrest forwards.
- Loosen luggage side compartment trim on left in upper section of body.
- Remove the two bolts -1- (9 Nm).
- Disconnect wiring harness -2- from crash sensor -3-.



3.16.2 Installing

- Installation is carried out in reverse order of removal.
- Switch ignition on.



WARNING

Ensure that nobody is in the vehicle.

Connect vehicle battery ⇒ Electrical system; Rep. Gr. 27; Battery .

3.17 Adapting components

3.17.1 Required special tools, workshop equipment, test and measuring devices and auxiliary items

- Vehicle diagnosis, testing and information system -VAS 5051-
- ♦ Diagnosis lead -VAS 5051/1- or -VAS 5051/3-

Select "guided fault finding" in vehicle diagnosis, testing and information system -VAS 5051- .

Once all control units have been read:

- Press "GoTo" button.
- Select "Function/component selection".
- Select "Body".
- "General body repairs"
- Select "01 Systems capable of self-diagnosis"
- Select "Airbag".
- Select "Functions".
- Select "Action".

