Airbags, servicing

Airbag system, safety precautions

WARNING!

- Checking, removing, installing and servicing may ONLY be performed by qualified personnel.
- Never perform tests using a test light or multimeter.
- Airbag system may only be tested when installed in vehicle using VAG1551/VAG1552 scan tool.
- Battery must be disconnected before performing any work on airbag system.
- Work can begin immediately after disconnecting the battery.
- When connecting the airbag system to a voltage source, no one should be in the vehicle interior.
- Always install airbag units in the vehicle as soon as they are removed from the

packaging.

- If installation work is interrupted, immediately return the airbag unit to its original packaging.
- NEVER leave an airbag unit unattended.
- After removing from the vehicle, ALWAYS lay the airbag down with impact absorbing pad (padded side) facing up.
- Never attempt to open or service airbag components. Always use new parts.

WARNING!

- DO NOT install an airbag unit that has fallen on a hard surface or experienced mechanical damage.
- Airbag units have an expiration date (see sticker on B-pillar). If airbag units are replaced, pull sticker with expiration date off new airbag unit and place it over old sticker on B-pillar. Airbag unit and sticker must be replaced after 14 years.
- If there is no sticker on the B-pillar, airbag change must be indicated in service plan.
- Airbag unit must not be treated with grease, cleaners or similar materials and must not be exposed to temperatures above 100° C (212
 ° F), even for short periods.

Always use the following work sequence when replacing airbag units:

1 - Remove old airbag unit and lay down with padded side facing up, for side curtain airbag, observe additional safety precautions \Rightarrow page <u>69-49</u>.

2 - Remove new airbag unit from transport container and lay down with padded side facing up, for side curtain airbag observe additional safety precautions \Rightarrow page 69-49.

3 - Immediately place old airbag in transport container.

4 - Install new airbag in vehicle.

Airbag units, replacing after an accident

Accident with activation of airbag and belt tensioners (up to and including airbag 7)

Airbag control module must be replaced after every activation of airbag and belt tensioners

Accident with activation of airbag and belt tensioners (for airbag 8) (integrated as of 10/98)

Notes:

- For vehicles with airbag 8, display will indicate airbag front and side or airbag front and side curtain.
- Airbag control module can be used for up to three side-/side curtain airbag and/or belt tensioner activations.
- After the third activation, the DTC "Control Module Malfunctioning" will appear.

Airbag control module must be replaced:

 After driver-side and/or passenger-side airbag deployment.

- If housing is damaged.
- If there is a deformation of body channel, within a circumference of 200 mm around control module.
- After three side-/side curtain airbag deployments.

All models

Always replace any deployed airbag unit and the following

Also replace the following if passenger-side airbag deployed:

- Flap and mounting frame for airbag (do not reshape deformed mounting frames) and instrument panel (if damaged).
- Lateral acceleration sensor (if floor pan in area near sensor is deformed).

Also replace the following if driver-side airbag deployed:

- Spiral spring with slip ring.
- Lateral acceleration sensor (if floor pan in area near sensor is deformed).

Also replace the following if side airbag deployed:

 Lateral acceleration sensor for the deployed side airbag.

- Seatback cushion.
- Backrest cover.
- Lateral acceleration sensor that hasn't been activated (if area near it in floor pan has been deformed).

Also replace the following if side curtain airbag deployed:

- Acceleration sensor for deployed side airbag.
- Molded headliner.
- Trim panels at A-pillar, B-pillar, C-pillar and Dpillar.
- Acceleration sensor that hasn't been activated (if floor pan in area near sensor is deformed).

Also

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All seatbelts with activated belt tensioners.

On Board Diagnostic will recognize if belt tensioners have been activated for airbag V, 7 and 8.

A - if airbag control module has been triggered:

Front seat belt tensioners:

- Read Measuring Value Block display group 1:
 - ⇒ Repair Manual, Body On Board Diagnostic (OBD), Repair Group 01

Activated belt tensioners can be identified by "0111" or "too large" indicated on display.

Rear seat belt tensioners:

- Read Measuring Value Block display group 2:
- ⇒ Repair Manual, Body On Board Diagnostic (OBD), Repair Group 01

Activated belt tensioners can be identified by "0111" or "too large" indicated on display.

nouu m					
	1	2	3	4	

Read Measuring Value Block 1

Read	:k 2	\rightarrow			
	1	2	3	4	

B - If airbag control module is replaced:

- Check DTC memory:

⇒ <u>Repair Manual, Body On Board Diagnostic</u> (OBD), Repair Group 01

Activated belt tensioners can be identified by the DTC: "Ignitor for belt tensioner - resistance is too high"

- If necessary (visual check) also replace: all damaged components.

Accident without airbag deployment

If airbag Malfunction Indicator Lamp (MIL) -K75does not indicate a DTC, then airbag components do not need to be replaced. Check seat belts separately.

After replacing airbag units or the control module, attach label (only tear-off strip) to registration card and send in registration card.

Airbag system side airbags, safety precautions

WARNING!

- Checking, removing, installing and servicing may ONLY be performed by qualified personnel.
- Following the same safety precautions as for driver and passenger-side airbags.
- Only use original equipment seat covers and backrest covers that are approved for use with side airbags (identified by a label on the fabric).
- Do not use extra seat covers over the seat as they interfere with proper side airbag operation.
- Do not use seat cushion supports, mats or similar since they impare seat occupant sensor and airbags

Note:

The driver's seat does not have a seat occupant sensor.

WARNING!

- For vehicles without heated seats, a dummy seat heating element is installed (heating element without heating wire).
- The seat backrest foam must not be cut out in the area of the side airbag.
- When installing, seam near side airbag must be straight.

WARNING!

- All upholstery clips must be replaced (metal and plastic clips).
- Only use genuine Audi replacement upholstery clips.
- When installing, all upholstery clips must be installed at the same location from which they were removed.
- If the seat cover is damaged (rips, burn holes etc) near the side airbag, always replace the seat cover to ensure proper side airbag inflation.
- Seat cover may not be repaired in the area near the side airbag (special thread and an exact seam are used).
- Always replace seat cover if side airbag has deployed.
- All damaged components must be replaced after an accident. If no damage to the airbag unit is found, the airbag unit can be reused.

- Side airbag units have an expiration date (see sticker on B-pillar). If side airbag units are replaced, pull sticker with expiration date off new side airbag unit and place it over old sticker on B-pillar. Replace side airbag unit and sticker after 14 years.
- If there is no sticker on the B-pillar, airbag change must be indicated in service plan.
- If side airbag unit is replaced, pull airbag number sticker off side airbag unit and stick it to the seat pan.
- Do not use a needle or other sharp objects to poke around area near airbag and sensor mat.

Additional safety precautions for side curtain protection airbag

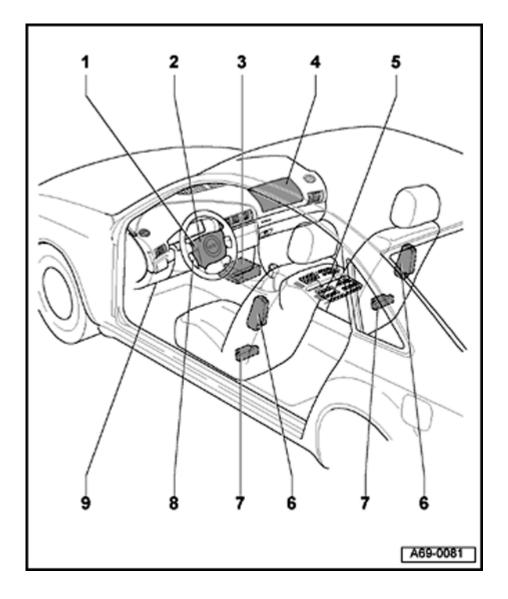
WARNING!

All safety precautions for the driver and passenger-side airbags apply, as well as the following:

- Visually check the vehicle's trim panels for damage before every installation.
- Do not attempt any repair work on the vehicle trim panels (top trim panels for Apillar, B-pillar, C-pillar and D-pillar).
- Make sure the trim panel is securely fitted during installation.
- Side curtain airbags must only be folded at its intended location (transition of roof to Apillar).
- To carry out repairs behind the side curtain airbag, always remove the entire unit first.
- After removal, always carry the side curtain airbag in the folded position.

WARNING!

- After removal, place the side curtain airbag into the transport container in the folded position or lay on a clean, even surface (on a blanket or in the luggage compartment).
- After servicing the body of vehicle in vicinity of airbag, check the body for welding beads, deformations and chafe marks (compare to opposite side of the vehicle).
- Always hold the side curtain airbag securely.
- After removal, always fold the side curtain airbag and grasp by the igniter (thumbs toward E-connection).
- Always keep one hand on the igniter.
- Never twist, wind, bend, throw, spin, pull, hang, squeeze, press, pinch or clamp the side curtain airbag.
- If any contamination penetrates into the fabric (i.e. oil, grease, lacquer, paint or solvent), the unit must always be replaced.



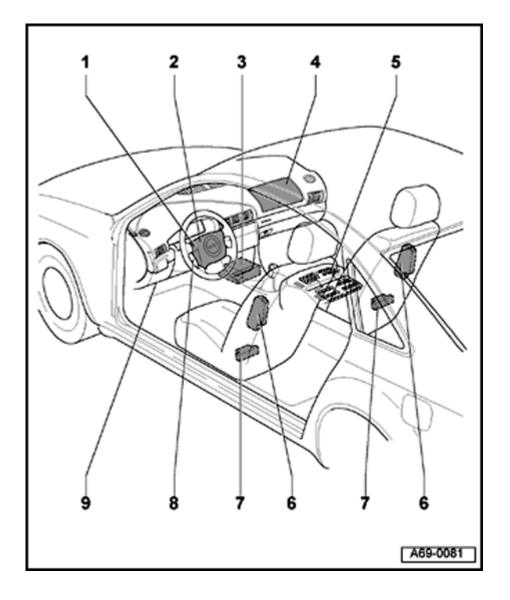
Airbag component locations, overview

- 1 Driver-side airbag unit
 - Removing > m.y. 1998 \Rightarrow page 69-53
 - Removing m.y. 1998 $> \Rightarrow page 69-54$
- 2 Driver-side airbag unit (sport steering wheel)
 - Removing \geq m.y. 1998 \Rightarrow page 69-58
 - Removing m.y. 1998 > ⇒ page 69-61
- 3 Airbag control module -J234-
 - Removing and installing \Rightarrow page 69-74
- 4 Passenger-side airbag unit
 - Removing \Rightarrow page 69-70
 - Locking and activating (adaptation)

⇒ <u>Repair Manual, Body On Board Diagnostic</u> (OBD), Repair Group 01

5 - Seat occupant sensor

Removing and installing ⇒ page 69-83



6 - Side airbag

- Removing and installing \Rightarrow page 69-75
- 7 Crash sensor for side airbag
 - Removing and installing \Rightarrow page 69-85
- 8 Spiral spring
 - Removing and installing ➤ m.y. 1998 ⇒ page 69-64
 - Removing and installing from sport steering wheel ➤ m.y. 1998 ⇒ page 69-67
 - Removing and installing m.y. 1998 >⇒ page 69-68
- 9 Data Link Connector (DLC)

Driver-side airbag unit (> m.y. 1998), removing and installing

- Disconnect battery Ground (GND) strap.

Note:

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Always follow airbag safety precautions when working on airbag system components (\Rightarrow page 69-40).

- Using T30 Torx[®] bit, unbolt airbag unit on both left and right side of steering wheel.

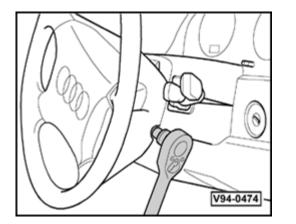
Tightening torque: 6 Nm (53 in. lb)

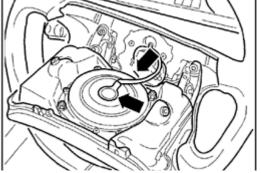
- Carefully pull back airbag unit.
- Disconnect harness connector from airbag unit.

- Place airbag unit on suitable surface with impact padding facing up.
 - When installing, make sure harness connector audibly engages (clicks).

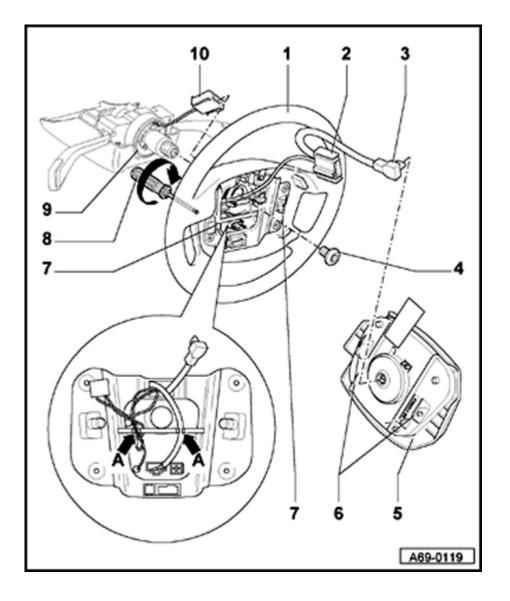
WARNING!

No one may be in vehicle when connecting battery Ground (GND) strap.





- Switch ignition on and connect battery Ground (GND) strap.

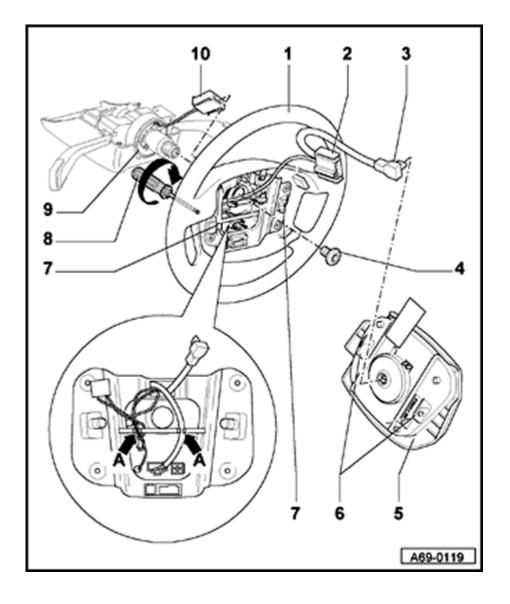


Driver-side airbag unit (m.y. 1998 ≯), removing and installing

WARNING!

Follow all safety precautions when working on the airbag \Rightarrow page 69-40.

- 1 Steering wheel
 - Removing \Rightarrow page 69-57
 - Secure loose cable at location indicated by arrow -A-.
- 2 Harness connector for spiral spring
- 3 Harness connector for airbag unit
- 4 Multipoint socket
 - Always replace
 - ◆ 60 Nm (44 ft lb)
- 5 Airbag unit
- 6 Threaded bushing
- 7 Torx[®] bolt (T30)
- 8 Torx[®] wrench (T30)



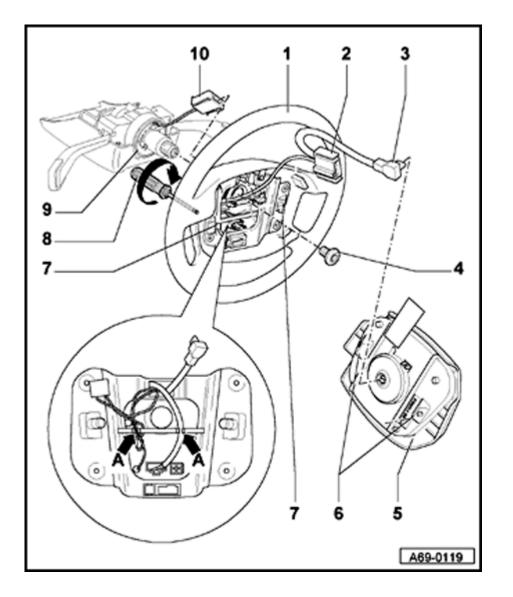
- 9 Spiral spring
- 10 Harness connector for heated steering wheel

Removing

WARNING!

Follow all safety precautions when working on airbag \Rightarrow page 69-40.

- Release steering wheel adjuster.
- Pull steering wheel as far out and up as possible.
- Place steering wheel vertical.
- Remove Torx[®] bolt (T30).
- Turn steering wheel 1/2 turn (180°) back and remove second Torx[®] bolt (T30).
- Pull connector 3 from airbag unit.
- Place airbag unit on appropriate surface with impact padding facing up.



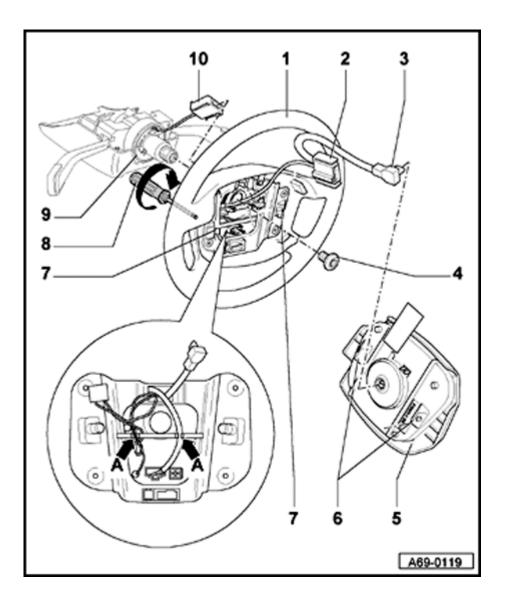
Installing

- When installing, make sure connector audibly engages (clicks).

WARNING!

Make sure no one is in vehicle.

- Switch ignition on and connect battery Ground (GND) strap.



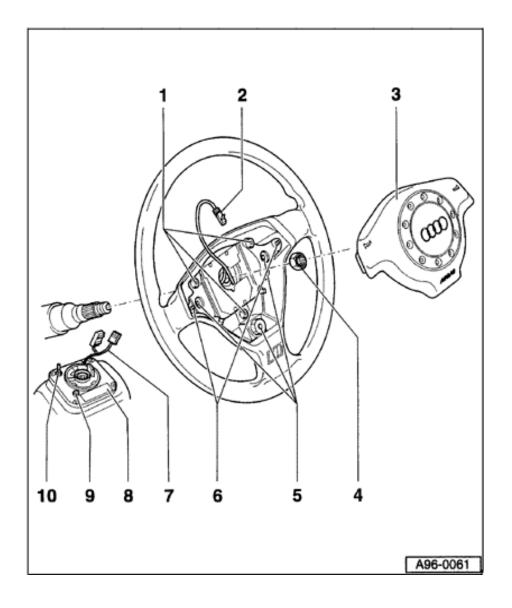
Steering wheel, removing and installing

Removing

- Remove airbag unit \Rightarrow page 69-54.
- Center steering wheel (wheels are straight).
- Remove bolt 4 -.
- Disconnect harness connectors 2 and 10 -.

Installing

- Center steering wheel (wheels straight).
- When installing, make sure harness connectors audibly engage (click).
- Replace bolt 4 and tighten to 60 Nm (44 ft lb).
- Install airbag unit \Rightarrow page \Rightarrow Page 69-54.

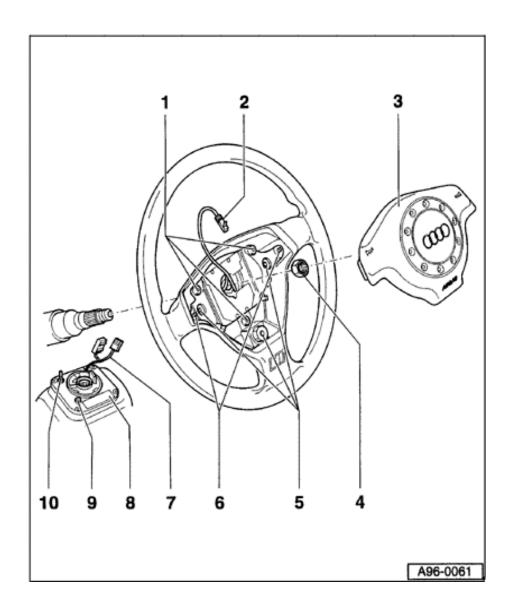


Driver-side airbag for sport steering wheel (> m.y. 1998), removing and installing

WARNING!

Follow all safety precautions when working on airbags \Rightarrow page 69-40.

- 1 Bolts to secure upper part of carrier unit
 - ◆ 5 Nm (44 in. lb)
- 2 Harness connector for airbag unit
- 3 Airbag unit
- 4 Nut for steering wheel
 - ◆ 42 Nm (31 ft lb)
- 5 Bolts to secure lower part of carrier unit.
 - ◆ 5 Nm (44 in. lb).
- 6 Torx[®] bolt (T30)
 - ◆ 6 Nm (53 in. lb)
- 7 Securing cable for spiral spring



- 8 Spiral spring
- 9 Journal
- **10 Transportation protection**

Removing

- Unbolt airbag unit from behind using Torx[®] wrench (T30).
- Remove airbag unit -3- and disconnect harness connector -2-.
- Place airbag unit on appropriate surface with impact padding facing up.

Installing

Notes:

- Make sure harness connector -2- audibly engages (clicks).
- When installing airbag unit, first tighten right Torx[®] bolt.

WARNING!

Make sure no one is in vehicle.

- Switch ignition on and connect battery Ground (GND) strap.

Airbag sport steering wheel, retrofitting

For vehicles m.y. 1995 > that were equipped with an airbag as standard equipment, an Audi dealer can retrofit the vehicle with an airbag sport steering wheel.

The following components are required: airbag sport steering wheel, airbag unit and applicable label for the vehicle (e.g. S4).

Remove the sticker with the expiration date from the new airbag unit and apply it to the airbag identification plate on the lower driver-side Bpillar.

If the vehicle does not have a label, note airbag replacement in the maintenance plan.

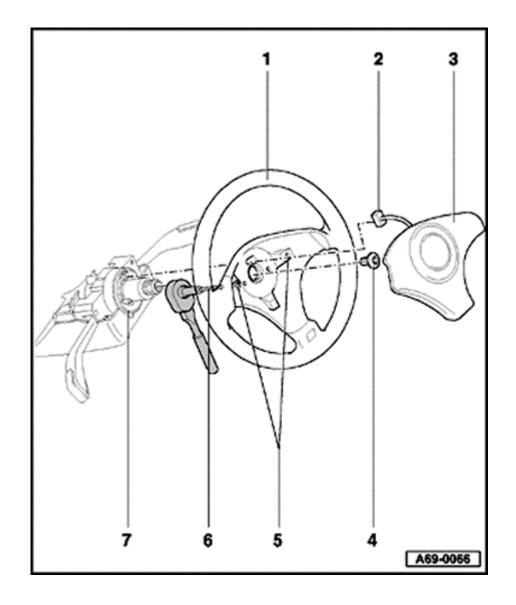
3 7 5 6 A69-0066

Driver-side airbag for sport steering wheel (m.y. 1998 >), removing and installing

WARNING!

Follow all safety precautions when working on airbags \Rightarrow page 69-40.

- 1 Sport steering wheel
 - Removing \Rightarrow page 69-63
- 2 Harness connector for spiral spring
- 3 Airbag unit
- 4 Multipoint socket
 - Always replace
 - ◆ 60 Nm (44 ft lb)
- 5 Torx[®] bolt (T30)
 - ◆ 7 Nm (62 in. lb)
- 6 Torx[®] wrench (T30)
- 7 Spiral spring



Removing

WARNING!

Follow all safety precautions when working on airbags \Rightarrow page 69-40.

- Unbolt airbag unit using Torx[®] wrench (T30).
- Disconnect harness connector 2 -.
- Place airbag unit on appropriate surface with impact padding facing up.

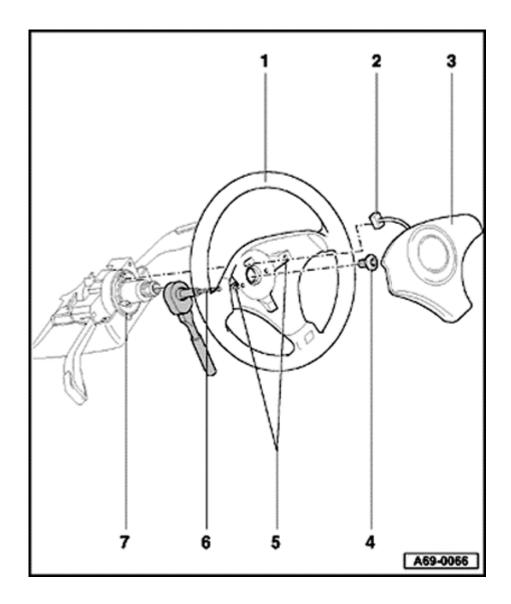
Installing

- Make sure harness connector 2 audibly engages (clicks).
- Install airbag unit and tighten to 7 Nm (62 in. lb).

WARNING!

Make sure no one is in vehicle.

- Switch ignition on and connect battery Ground (GND) strap.



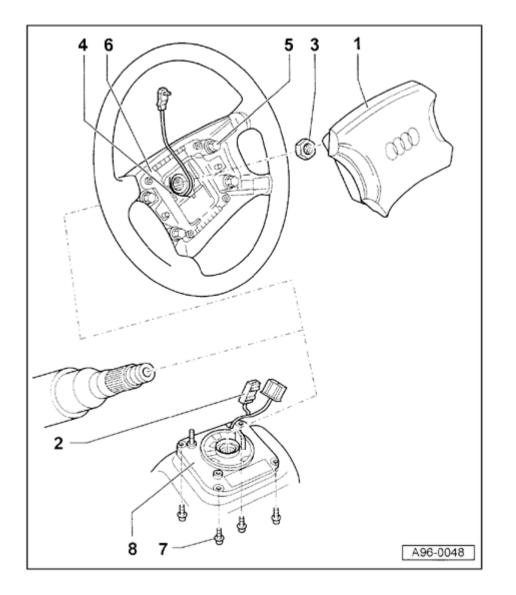
Sport steering wheel, removing and installing

Removing

- Remove airbag unit \Rightarrow page \Rightarrow Page 69-61.
- Center steering wheel (wheels straight).
- Remove bolt 4 .

Installing

- Center steering wheel (wheels straight).
- Replace bolt 4 and tighten to 60 Nm (44 ft lb).
- Install airbag unit \Rightarrow page \Rightarrow Page 69-61.

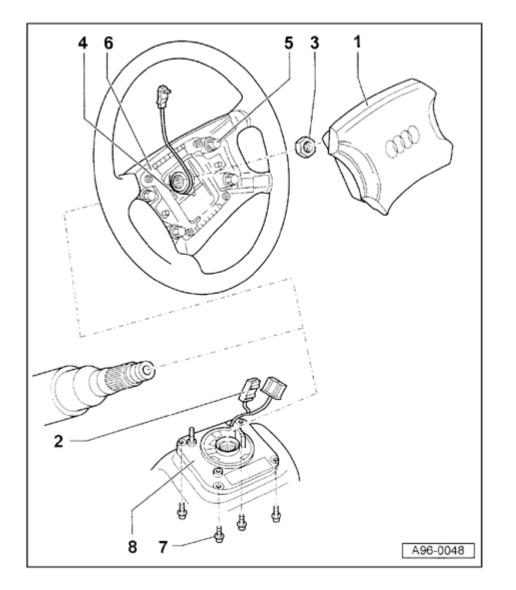


Spiral spring (> m.y. 1998), removing and installing

WARNING!

Follow all safety precautions when working on airbags \Rightarrow page 69-40.

- Disconnect battery Ground (GND) strap.
- Wheels must be facing straight ahead.
- Remove airbag unit \Rightarrow page 69-53.
- Remove steering wheel.
- ⇒ <u>Repair Manual, Suspension, Wheels, Steering,</u> <u>Repair Group 48</u>
- Remove bolts -5- (4x) from carrier unit -6-.



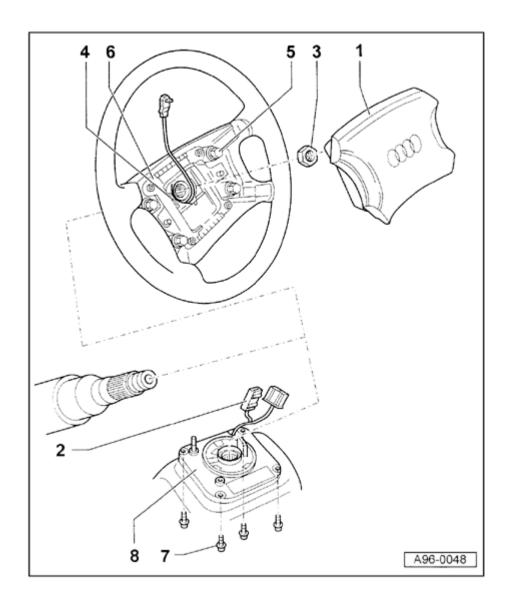
- Remove bolts -7- (4x) from spiral spring -8-.

WARNING!

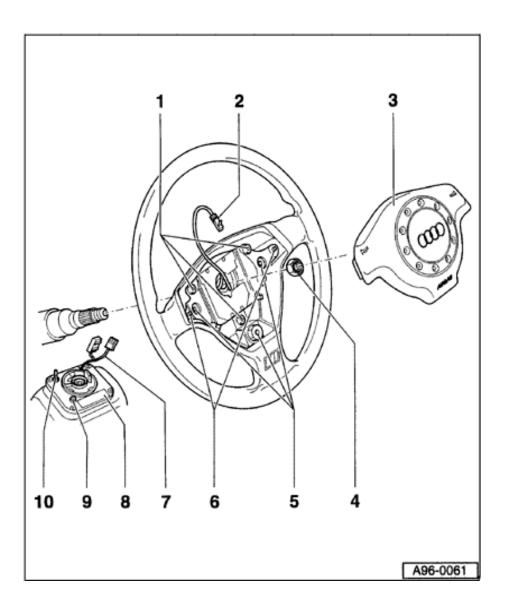
Steering wheel and spiral spring can only be removed with the wheel straight-ahead. Do not rotate spiral spring after it is removed.

Notes:

- Even if spiral spring has been turned, determine center position.
- From the center position, the spiral spring should rotate approx. 3 1/2 revolutions in both directions.
 - 1 Airbag unit
 - 2 Harness connector for airbag and horn
 - 3 Mounting bolt for steering wheel
 - 4 Harness connector for horn
- 5 Bolt (4x)



- 6 Carrier unit
- 7 Bolt (4x)
- 8 Spiral spring



Sport steering wheel spiral spring (> m.y. 1998), removing and installing

Notes:

- Wheels must be facing straight ahead.
- Before removing spiral spring, remove airbag unit and steering wheel.
- Remove bolts -1- (3x).
- Tightening torque: 5 Nm (44 in. lb)
- Remove carrier unit. Disconnect harness connectors.
- Remove bolts -5- (3x).
- Tightening torque: 5 Nm (44 in. lb)
- Remove lower part of carrier unit. Disconnect harness connectors.
- Remove bolts securing spiral spring.
- Pull spiral spring downward and remove. Do not rotate spiral spring while it is removed.

Spiral spring, removing and installing

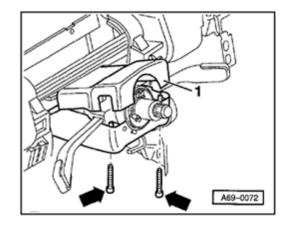
- Driver-side airbag unit and steering wheel removed
- Pull steering column all the way out and down.
- Remove bolt -1- (2x).

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Tightening torque: 2.8 Nm (25 in. lb)

- Remove handle -2-.

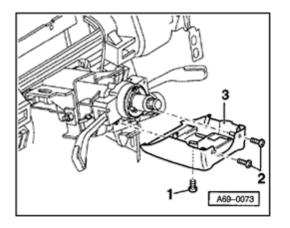


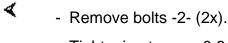
- Remove two Phillips-head screws (arrows).

Tightening torque: 0.6 Nm (5 in. lb)

- Remove upper section of steering column switch -1-.

To install, insert upper shell into retaining tab in lower shell, swing down and install screws.





Tightening torque: 0.6 Nm (5 in. lb)

- Remove hex bolt -1-.

Tightening torque: 0.6 Nm (5 in. lb)

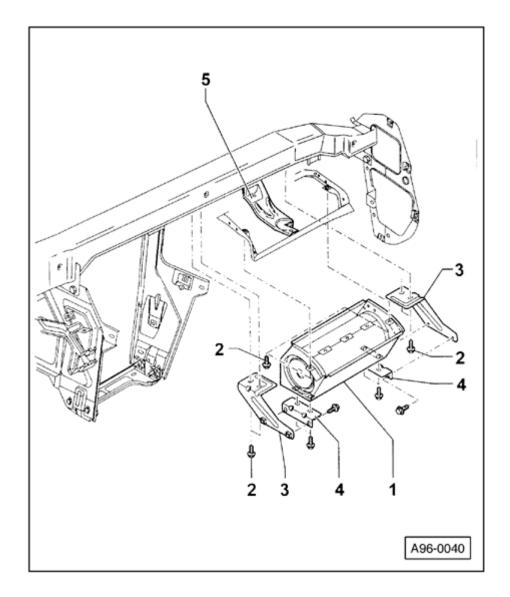
- Remove lower trim for steering wheel switch -3-.

- Disconnect harness connector -1-.
 - Release retaining tab (arrows) and pull spiral spring from steering wheel switch.

Notes:

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- Wheels must be in straight-ahead position when removing or installing spiral spring.
- A new spiral spring is secured in the centered position using a tie wrap.



Passenger-side airbag unit, removing and installing

1 - Passenger-side airbag unit

WARNING!

Follow all safety precautions when working on airbags \Rightarrow page 69-40.

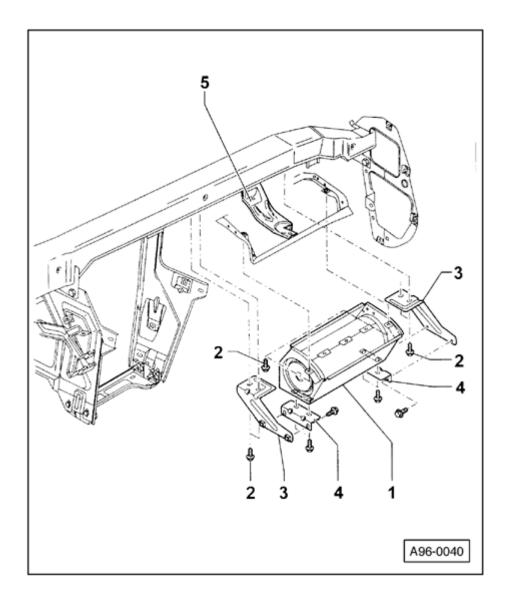
Removing:

- Disconnect battery Ground (GND) strap.
- Remove passenger-side knee bolster ⇒ page 68-1.
 - Disconnect harness connector (tunnel connection to rear and left of airbag unit) \Rightarrow Fig. 1.

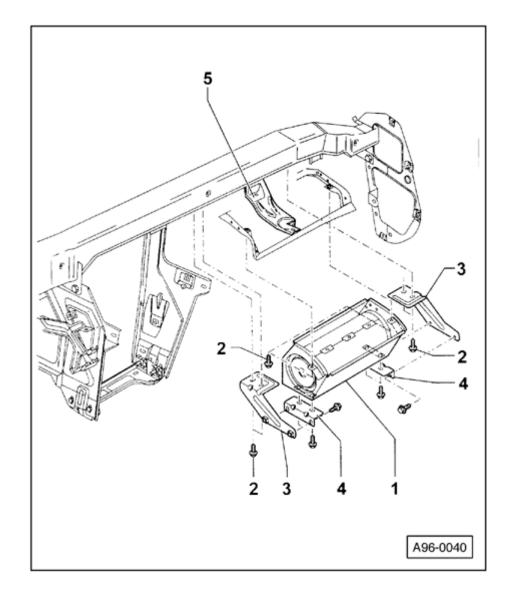
WARNING!

Do NOT disconnect red 2-pin harness connector on side airbag unit under any circumstances.

- First, disconnect both angle brackets -4-.
- Remove both angle brackets -3-.



- Remove bolts -2- at passenger-side airbag.
- Remove airbag unit.



- Place airbag unit on suitable surface with impact padding facing up.

Note:

Always replace instrument panel after passengerside airbag has deployed.

Installing:

- Install airbag unit.
- Make sure harness connector -6- audibly engages (clicks).
- Switch ignition on.

WARNING!

Make sure no one is in vehicle.

- Connect battery Ground (GND) strap.
- 2 Bolts (2x)
 - Always replace after airbag has deployed
 - 12 Nm (9 ft lb)
- 3 Support
 - Always replace after airbag has deployed
- 4 Angle bracket

Airbags, servicing

5 - Bracket

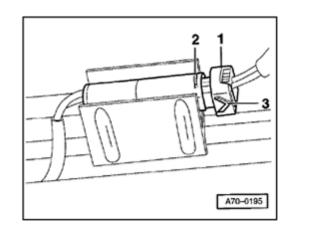


Fig. 1 Disconnecting airbag harness connector

- Using screwdriver, push harness connector -1- for passenger-side airbag over retaining tab -2- and disconnect harness connector in direction of arrow -3-.

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Airbag control module -J234-, removing and installing

- Disconnect battery Ground (GND) strap.
- Remove front center console \Rightarrow page 68-30.
- Disconnect securing bracket at harness connector -3-.
 - Disconnect harness connector -3- from control module -1-.
 - Remove nuts -2- (3x).

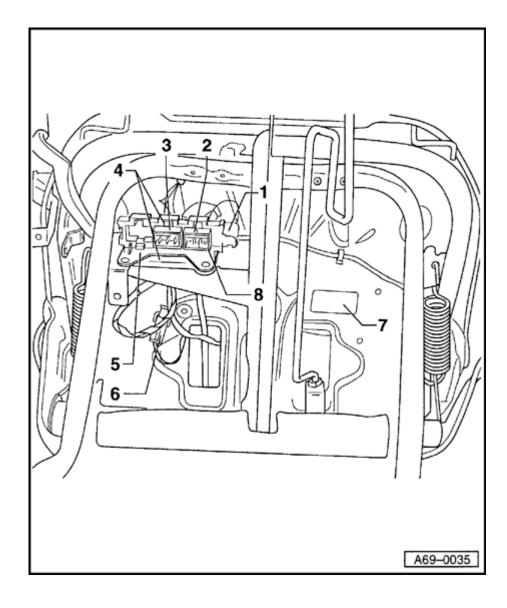
Tightening torque: 6 Nm (53 in. lb)

- Remove airbag control module -J234-.

Note:

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If the airbag control module is replaced, the new control module must be coded.



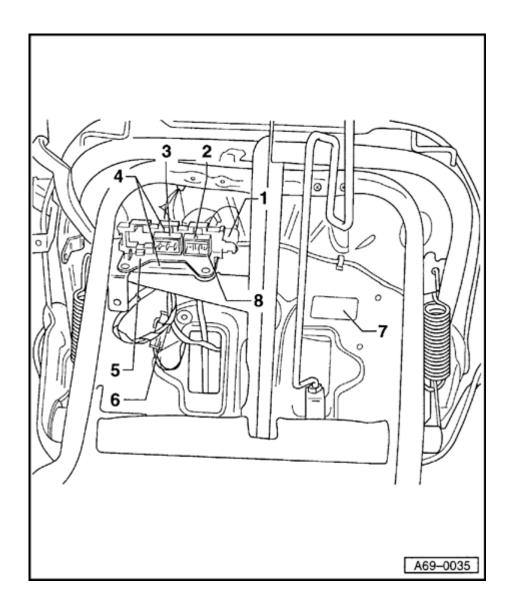
Side airbag, removing and installing

WARNING!

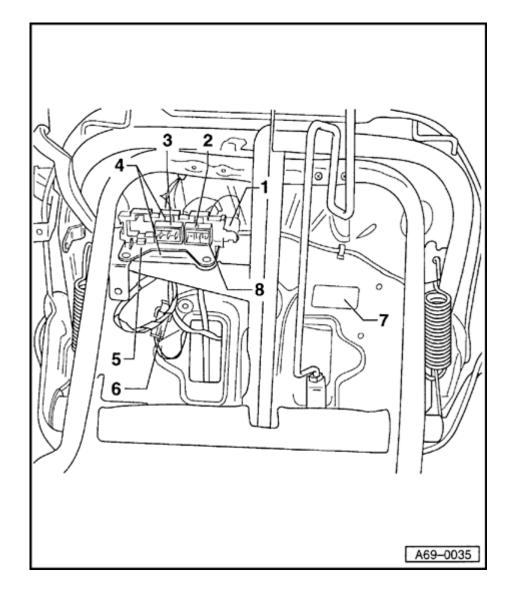
- Follow all safety precautions when working on airbags ⇒ page 69-40.
- Before starting work on seats, connect VAS5094 airbag adapter ⇒ page 72-9.

Removing

- Disconnect battery Ground (GND) strap.
- Remove seat $\Rightarrow page 72-2$.
- Remove outer trim pieces and trim on side of seat ⇒ page 74-16.
- Remove harness connector -2-.
- Disconnect Ground (GND) strap from harness connector -2-, chamber 4.
- Disconnect harness connector for side airbag -1from connector strip -5- by pressing on retaining tab.



- Disconnect intermediate connector for seatback heater -6-.
- Disconnect harness connector for side airbag -1from outer edge of seat ⇒ Fig. 1
- Remove side airbag unit \Rightarrow page 69-79.
 - 1 Harness connector for side airbag
 - 2 Harness connector for sensor mat
 - 3 Retaining tab
 - 4 Harness connector for seat heater
 - 5 Connector strip
 - 6 Intermediate connector for seatback heater
 - 7 Airbag number sticker



8 - Bar in connector Installing:

WARNING!

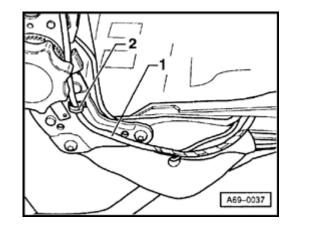
- To ensure that the side airbag functions properly, when working on backrest cover, always install new upholstery clips in the same locations they were removed from.
- Only use seat covers approved for use with side airbags.
 - Install harness connector -2- at same location as when removed and ensure that bar -8- points toward tunnel.
 - Switch ignition on.
 - Close doors.

WARNING!

Make sure no one is in vehicle.

- Connect battery Ground (GND) strap.





- Fig. 1 Wiring location on outer edge of seat
- Remove backrest cover \Rightarrow page 74-12.
- Unclip clip -2- (1x).

WARNING!

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When installing side airbag cable -1-, make sure that it doesn't rub against any moving parts.

Side airbag unit, removing and installing

WARNING!

Before starting work on seats, connect VAS5094 airbag adapter \Rightarrow page 72-9.

Removing

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- Remove bolts -2- (2x).

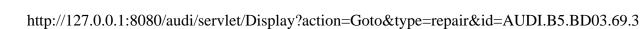
WARNING!

- Do NOT reuse bolts -2-. Replace the metal bolts with M5 bolts and nuts supplied.
- Drill mounting holes to 5.5 mm.
- Tightening torque: 5.5 Nm (49 in. lb)

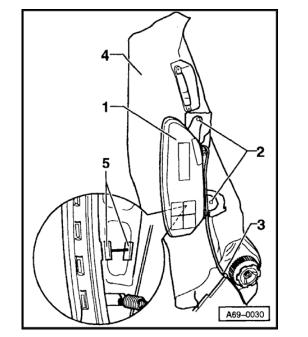
Note:

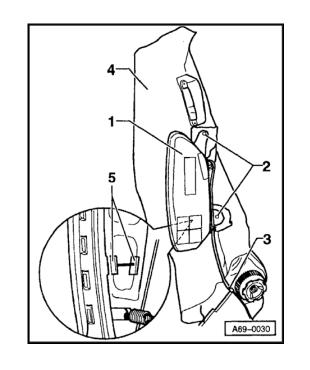
Illustration is shown without anti-crush fleece.

- Carefully disconnect side airbag -1- at retaining clip -5-.
- Remove side airbag -1-.
- Place airbag unit on appropriate surface with impact padding facing up.



11/19/2002





Installing

Note:

Do not cut anti-crush fleece -4- in area near retaining clip -5-.

- Remove anti-crush fleece -4- before drilling.
- Drill out mounting holes to 5.5 mm.
- Pull anti-crush fleece -4- over seat backrest frame.
- Clip side airbag -1- with anti-crush fleece into place.
- Install bolts -2-, pull up anti-crush fleece -4-, install nuts and tighten to 5.5 Nm (49 ft lb).
- Remove expiration date sticker from airbag unit and place over old sticker on driver's door.
- If vehicle does not have label, note airbag replacement in maintenance plan.
- Remove airbag number sticker from airbag unit and place over old sticker on seat pan \Rightarrow page 69-75, item -7-.

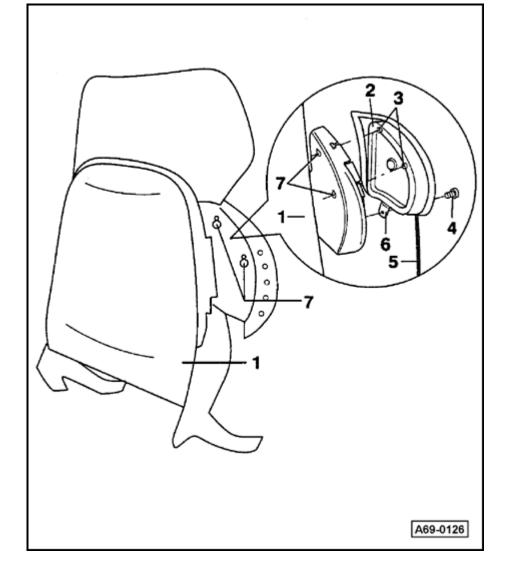
Side airbag for Recaro seat, removing and installing

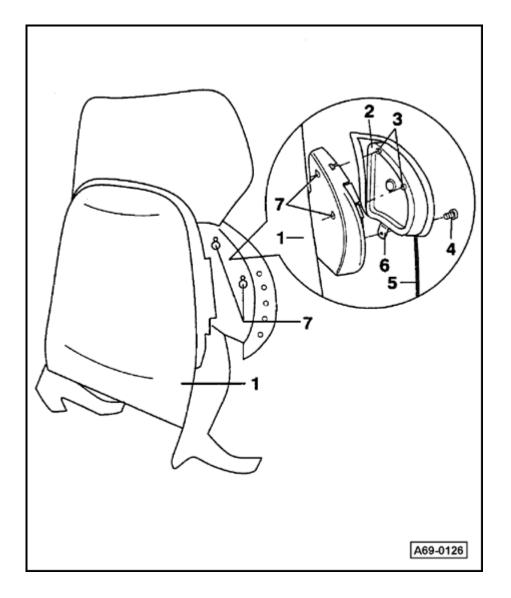
WARNING!

- Follow all safety precautions when working on side airbag.
- Before starting work on seats, connect VAS5094 airbag adapter ⇒ page 72-9.
 - 1 Backrest
 - 2 Side airbag unit

Removing:

- Remove Recaro seat $\Rightarrow page 72-25$.
- Remove mounting trim \Rightarrow page 72-41.
- Disconnect yellow airbag harness connector under seat.
- Disconnect black Ground (GND) harness connector for airbag, located under seat.
- Unbolt bolt -4- on retainer -6- on underside of side airbag unit -2-.
- Push side airbag unit -2- downward.
- Carefully pull out side airbag unit -2-.





Installing:

WARNING!

Make sure vehicle is not occupied.

Note:

Always replace bolt -4-.

- Install side airbag unit -2- so that engaging pins -3- engage in locating holes -7-.
- Push side airbag unit up to stop.
- Tighten new bolt -4- on side airbag unit to 10 Nm (7 ft lb).
- Install airbag cable -5-.
- Connect yellow harness connector of airbag cable and black harness connector for airbag Ground (GND) strap underneath seat.
- Reinstall mounting trim.

3 - Engaging pins

- 4 Bolt
 - 10 Nm (7 ft lb)
- 5 Airbag cable

Airbags, servicing

- 6 Retainer
- 7 Locating holes

Seat occupant sensor, removing and installing

WARNING!

Before starting work on seats, connect VAS 5094 airbag adapter \Rightarrow page 72-9.

Note:

The seat occupant sensor will be used at a later time.

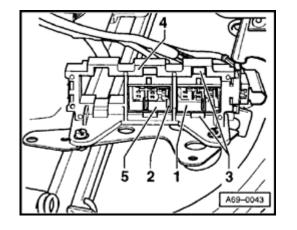
- Removing seat $\Rightarrow page 72-2$.
 - Remove seat cover \Rightarrow page 74-15.

Note:

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Sensor mat is only available as a replacement part which includes seat heater and seat cushion.

- Press retaining tabs -3- and disconnect connector -1- for seat occupant sensor from connector strip -4-.
- Disconnect Ground (GND) strap from harness connector -1- (location 4-).
- Unclip harness connector -5- and disconnect intermediate connector to backrest.
- Remove seat cushion along with sensor mat and seat heater from seat pan.



- When installing, make sure bar -2- points toward tunnel.
- After installing sensor mat, test sensor mat function using VAG1551 Scan Tool (ST) \Rightarrow page 69-84.

Testing sensor mat function

Note:

Illustration is shown without cover.

- Remove any seat mats before testing sensor mats.

Connect VAG1551 scan tool

> ⇒ <u>Repair Manual, Body</u> <u>On Board Diagnostic</u> (OBD), Repair Group <u>01</u>.

Select Read Measuring Value Block (function

08) and input display group number 003 $\Rightarrow Repair Manual, Body$ On Board Diagnostic(OBD), Repair Group01.

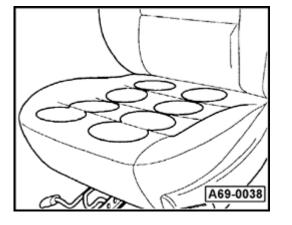
Read Measuring Value Block number 2 for seat occupant sensor passenger side indicates: not occupied.

- Test each sensor group by pressing on them with your hand until display changes from "not occupied" to "occupied" (max. load 12 kg).

Note:

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If "occupied" is indicated, even though you are not pressing sensor group, either the sensor mat is malfunctioning or the seat cover is too tight.



Crash sensor for side airbag, removing and installing

WARNING!

Before starting work on seats, connect VAS 5094 airbag adapter \Rightarrow page 72-9.

Notes:

- A crash sensor for the side airbag is located under both the driver's and passenger's seats.
- Both crash sensors for the side airbags are identical.
- When installed, the arrow points down.

Removing

- Disconnect battery Ground (GND) strap.
- Remove front seat \Rightarrow page 72-2.
- Remove lower A-pillar trim \Rightarrow page 70-72.
- Unclip sill molding and fold upward.
- Pull up floor mat -4- near sensor.
- Disconnect harness connector -2- from crash sensor for side airbag -1-.
- Remove bolts -3- (2x).
 - Tightening torque: 6 Nm (53 in. lb)
- Remove crash sensor for side airbag -1-.

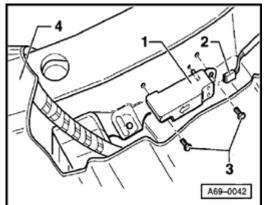
Installing

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- Switch ignition on.
- Close doors.

WARNING!

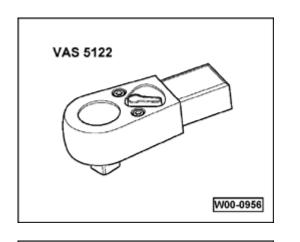
A REAL



Make sure no one is in vehicle.

- Connect battery Ground (GND) strap.







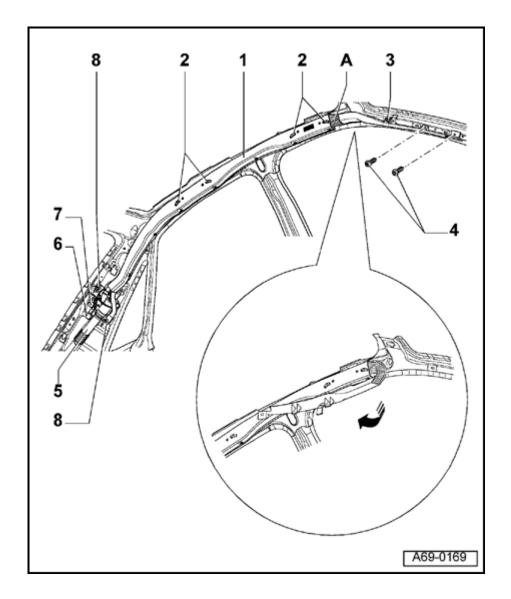
Side curtain protection airbag, servicing

Special tools and equipment



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Side curtain protection airbag (sedan), removing and installing

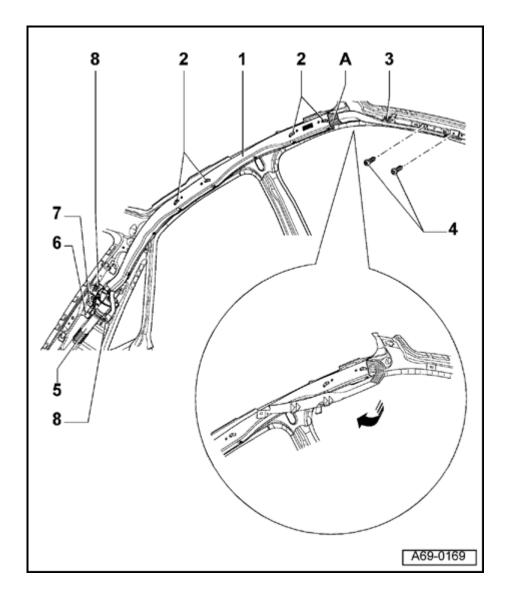
WARNING!

Follow all safety precautions when working on airbags \Rightarrow <u>page 69-40</u> and side curtain airbag \Rightarrow <u>page 69-49</u>.

1 - Side curtain airbag

Removing:

- Remove upper A-pillar trim panel ⇒ page 70-88.
- Remove upper B-pillar trim without loosening seat belt \Rightarrow page 70-91.
- Remove upper D-pillar trim \Rightarrow page 70-<u>96</u>.
- Remove bolts 4 (2x).
- Unclip side curtain airbag at clip 3 -.
- Fold front portion of side curtain airbag toward rear and secure at Velcro[®] strip (inset).
- Disconnect harness connector for side curtain airbag \Rightarrow Fig. 2.
- Remove bolts 8 (2x).
- Remove igniter 5 at clip 7 -.



- Remove side curtain airbag - 1 - by grab handle adapters - 2 -.

WARNING!

Always follow installation sequence for side curtain airbag.

Installing:

- Secure side curtain airbag at grab handle adapters - 2 - (2x) using pre-assembly clips ⇒ Fig. 5
- Clip igniter 5 in at clip 7 -.
- Install bolts 8 $(2x) \Rightarrow Fig. 1$.
- Release front portion of airbag 1 and fold it back to A-pillar, during this, twistsecuring seam -A- must face center of vehicle.
- Clip in side curtain airbag using clip 3 -.
- Install bolt 4 \Rightarrow Fig. 3.
- Remainder of installation is in reverse order of removal
- Switch ignition on.

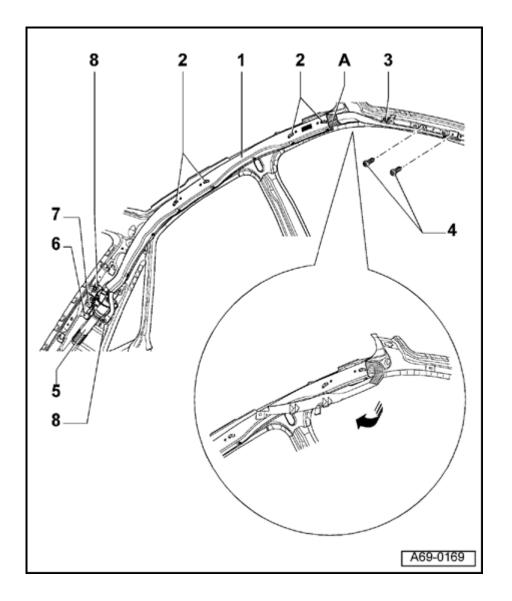
WARNING!

Make sure the passenger compartment is not

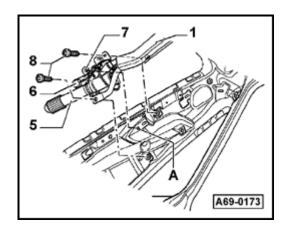
Airbags, servicing

occupied before connecting the battery Ground (GND) strap.

- Connect battery.



- 2 Grip handle adapter
- 3 Clip
- 4 Bolts (2x)
 - 4 Nm (35 in. lb)
 - Self-locking
 - Always replace
 - Always clean threaded holes for drive flange bolts (e.g. using tap)
- 5 Igniter
- 6 Side curtain airbag harness connector
- 7 Clip
- 8 Bolts (2x)
 - ◆ 4 Nm (35 in. lb)
 - Self-locking
 - Always replace
 - Always clean threaded holes for drive flange bolts (e.g. using tap)
 - Use VAS5 122 and VAG 1783



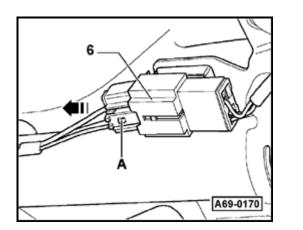


Fig. 1 Igniter at D-pillar

- Engage clip -7- in mount -A-.
- Install bolts -8-.
 - Tightening torque: 4 Nm (35 in. lb)
 - Use VAS 5122 and VAG 1783
- 1 Side curtain airbag
- 5 Igniter

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- 6 Airbag connector
- 7 Clip

Fig. 2 Disconnecting harness connector for side curtain airbag

- Press catches -A- and disconnect harness connector in direction of arrow.
- 6 Side curtain airbag harness connector

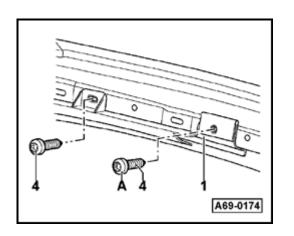


Fig. 3 Side curtain airbag at lower A-pillar

- Install lower bolt -A- first.
- 1 Side curtain airbag
- 4 Bolts (2x)

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Tightening torque: 4 Nm (35 in. lb)

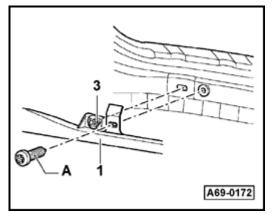


Fig. 4 Side curtain airbag at upper A-pillar

- Engage clip -3-.
- Bolt -A- must be attached along with A-pillar trim panel.
- 1 Side curtain airbag
- 3 Clip

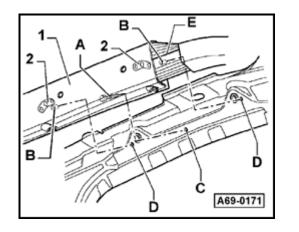


Fig. 5 Mounting side curtain airbag at roof grab handle

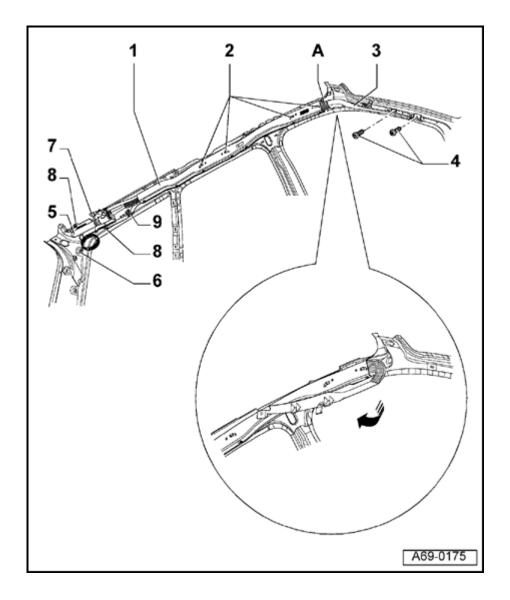
The procedure is the same at the front and the rear.

- Insert pre-assembly clip -A- into mounting point -C-.
- Insert pins -B- in mounting points -D-.
- Twist-securing seam -E- must face center of vehicle.
- 1 Side curtain airbag
- 2 Grip handle adapter, delivery casing airbag

Notes:

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- After reconnecting the battery, check and activate the vehicle's electrical equipment (radio, clock, window regulators) according to the repair manual and/or Owner's Manual.
- If the airbag Malfunction Indicator Lamp (MIL) -K75- indicates a malfunction, the DTC memory must be erased and then checked again using the VAG1551 scan tool.
- ⇒ <u>Repair Manual, Body On Board Diagnostic (OBD), Repair Group 01</u>



Side curtain protection airbag (Avant), removing and installing

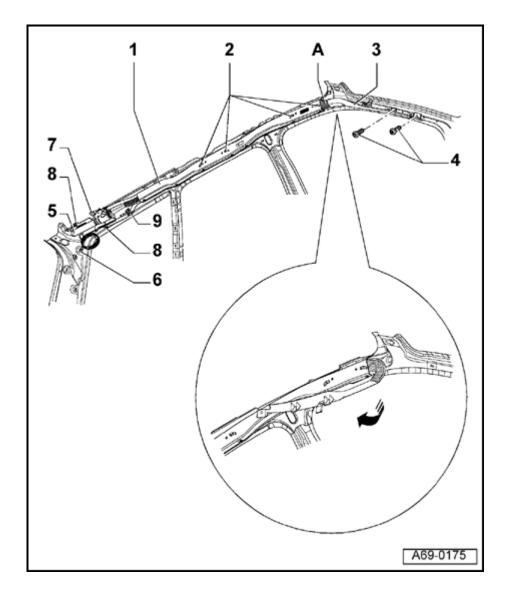
WARNING!

Follow safety precautions for working on airbags \Rightarrow page 69-40 and side curtain airbag \Rightarrow page 69-49.

1 - Side curtain airbag

Removing:

- Remove upper A-pillar trim panel ⇒ page 70-88 .
- Remove upper B-pillar trim without loosening seat belt \Rightarrow page 70-91.
- Remove upper C-pillar trim \Rightarrow page 70-<u>106</u>.
- Remove upper D-pillar trim \Rightarrow page 70-<u>107</u>.
- Remove bolts 4 (2x).
- Unclip side curtain airbag at clip 3 -.



- Fold front portion of side curtain airbag toward rear and secure at Velcro ® strip (inset).

WARNING!

NEVER disconnect the yellow 2-pin harness connector on the side curtain airbag!

- Disconnect harness connector for side curtain airbag behind side trim panel \Rightarrow Fig. 2 .
- Remove cable from D-pillar.
- Remove bolts 8 (2x).
- Remove igniter 5 at clip 9 -.
- Disengage retaining tab 7 -.
- Remove side curtain airbag 1 by grab handles 2 -.

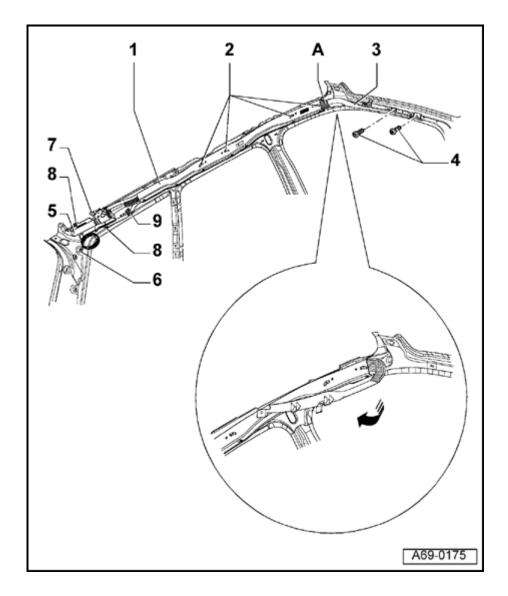
WARNING!

Always follow installation sequence for side curtain airbag.

Installing:

- Secure side curtain airbag at grab handle adapters - 2 - (2x) using pre-assembly clips \Rightarrow Fig. 5.

- Install bolts - 8 - $(2x) \Rightarrow Fig. 1$.



- Release front portion of airbag 1 and fold it back to A-pillar, during this, twistsecuring seam -A- must face center of vehicle.
- Clip in side curtain airbag using clip 3 \Rightarrow Fig. 4.
- Install bolt -4- \Rightarrow Fig. 3.
- Remainder of installation is in reverse order of removal
- Switch ignition on.

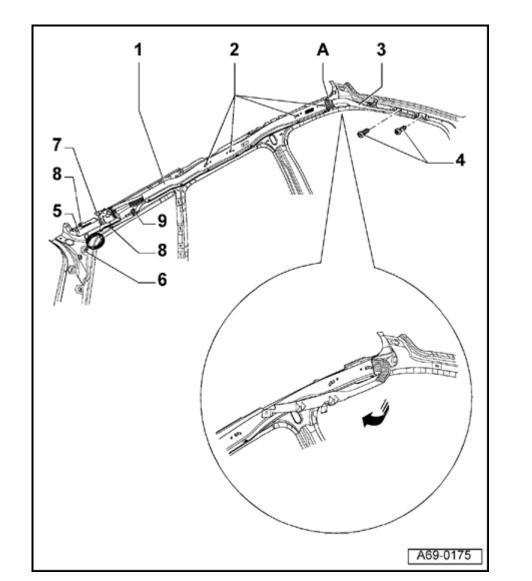
WARNING!

Make sure the passenger compartment is not occupied before connecting the battery Ground (GND) strap.

- Connect battery.
- 2 Grip handle adapter
- 3 Clip
- 4 Bolts (2x)
 - ◆ 4 Nm (35 in. lb)
 - Self-locking
 - Always replace
 - Always clean threaded holes for drive

Airbags, servicing

flange bolts (e.g. using tap)



- 5 Igniter
- 6 Side curtain airbag harness connector
- 7 Retaining tab
- 8 Bolts (2x)
 - ◆ 4 Nm (35 in. lb)
 - Self-locking
 - Always replace
 - Always clean threaded holes for drive flange bolts (e.g. using tap)
 - Use VAS 5122 and VAG 1783
- 9 Clip

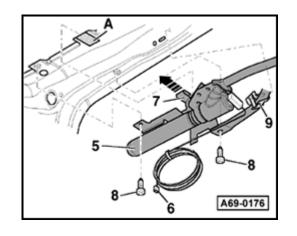


Fig. 1 Igniter at D-pillar

- Remove bolts -8-.
- Remove airbag in direction of arrow.
- Cable rolled up in delivery condition.
- 5 Igniter

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- 6 Harness connector
- 7 Retaining tab
- 8 Bolts (2x)

Use VAS 5122 and VAG 1783

Tightening torque: 4 Nm (35 in. lb)

- 9 Clip
- A Felt

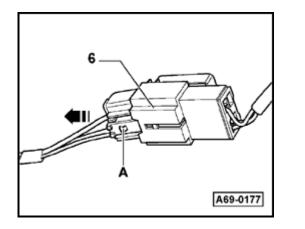


Fig. 2 Disconnecting harness connector for side curtain airbag

- Press catches -A- and disconnect harness connector in direction of arrow.
- 6 Side curtain airbag harness connector

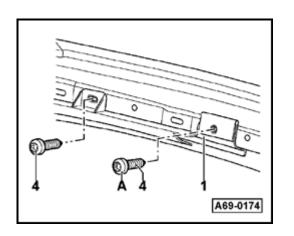


Fig. 3 Side curtain airbag at lower A-pillar

- Install lower bolt -A- first.
- 1 Side curtain airbag
- 4 Bolts (2x)

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Tightening torque: 4 Nm (35 in. lb)

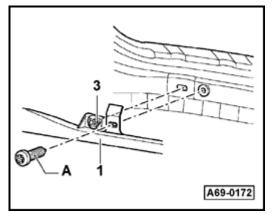


Fig. 4 Side curtain airbag at upper A-pillar

- Engage clip -3-
- Bolt -A- must be attached along with A-pillar trim panel.
- 1 Side curtain airbag
- 3 Clip

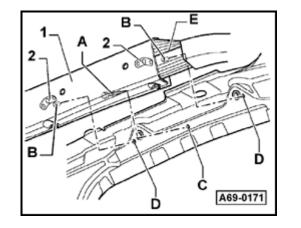


Fig. 5 Mounting side curtain airbag at roof grab handle

Front and rear roof grab handles are mounted the same way.

- Insert pre-assembly clip -A- into mounting point -C-.
- Insert pins -B- in mounting points -D-.
- Twist-securing seam -E- must face center of vehicle.
- 1 Side curtain airbag
- 2 Grip handle adapter, delivery casing airbag

Notes:

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- After reconnecting the battery, check and activate the vehicle's electrical equipment (radio, clock, window regulators) according to the repair manual and/or Owner's Manual.
- If the airbag Malfunction Indicator Lamp (MIL) -K75- indicates a malfunction, the DTC memory must be erased and then checked again using the VAG 1551 scan tool.
- ⇒ <u>Repair Manual, Body On Board Diagnostic (OBD), Repair Group 01</u>