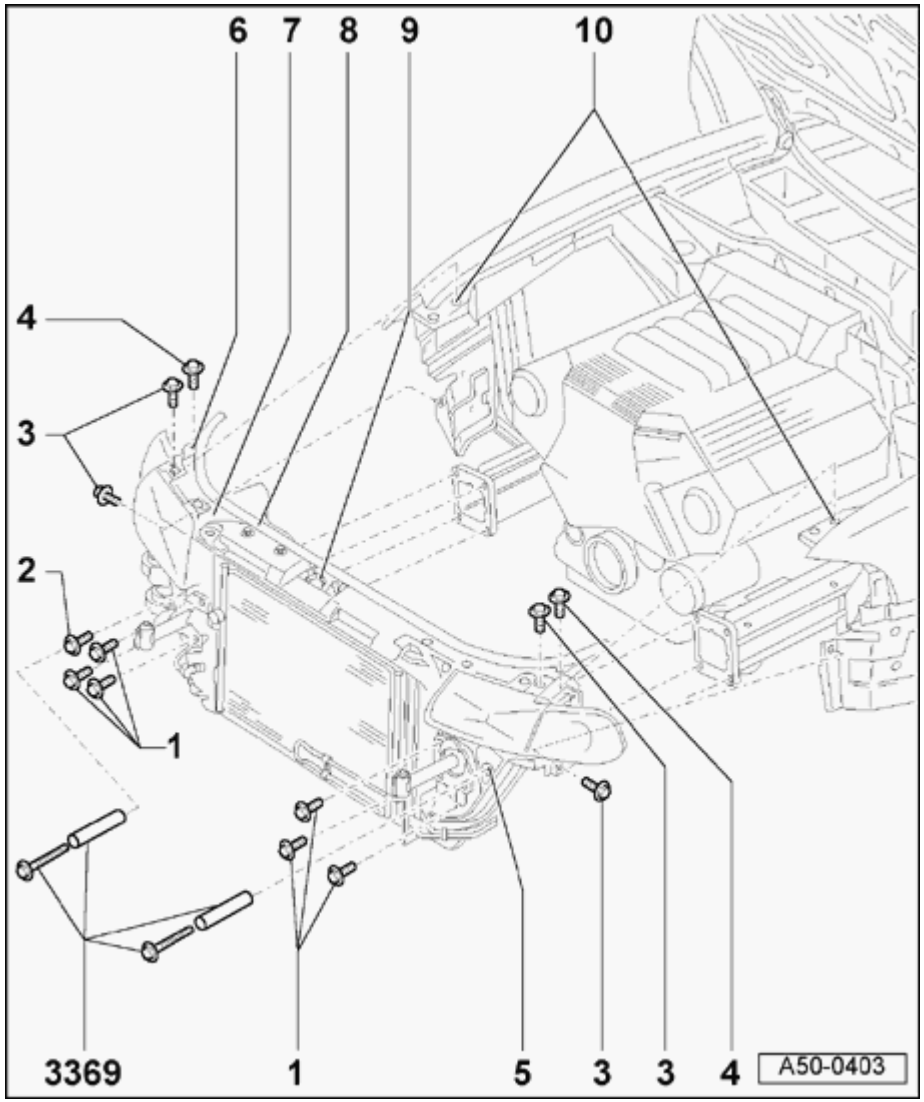
50-1



Body, front

Lock carrier with attachments, removing and installing

1 - Hex bolt (6x)

- 45 Nm (33 ft lb)

2 - Hex bolt

- 45 Nm (33 ft lb)

3 - Hex bolt (4x)

- 10 Nm (7 ft lb)

4 - Hex bolts (2x)

- 10 Nm (7 ft lb)

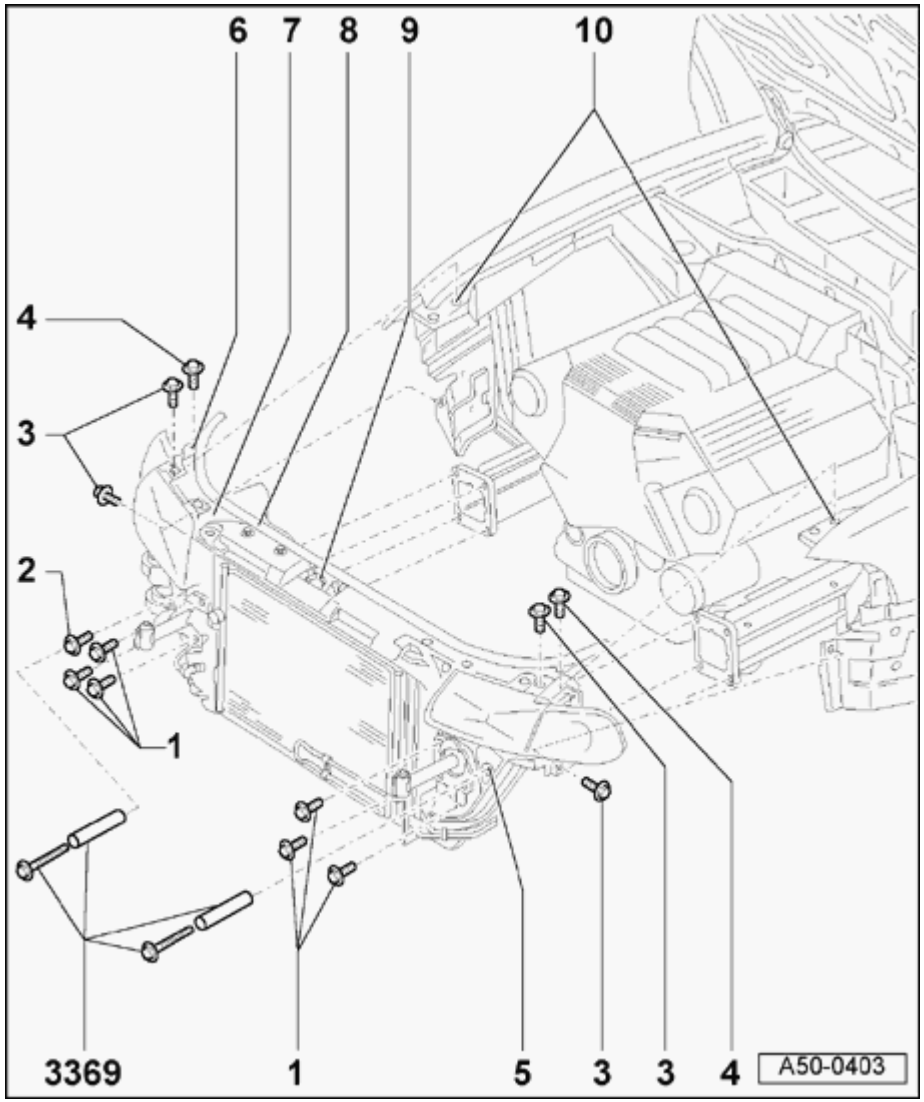
5 - Access hole for special tool

- For service position, attach special tool 3369 here

6 - Cowl attachment hole

- Attachment for service position

50-2



7 - Lock carrier

Removing:

- Remove bumper ⇒ page 63-1 .
- Remove noise insulation panel ⇒ page 50-18 .
- Disconnect hood lock cable ⇒ page 55-10 .
- Drain engine coolant and disconnect coolant hoses ⇒ Fig. 2 .
- Disconnect condenser from lock carrier only (do not disconnect any lines) and secure with wire (e.g. at front wheel).

⇒ *Repair Manual, Heating & Air Conditioning, Repair Group 87*

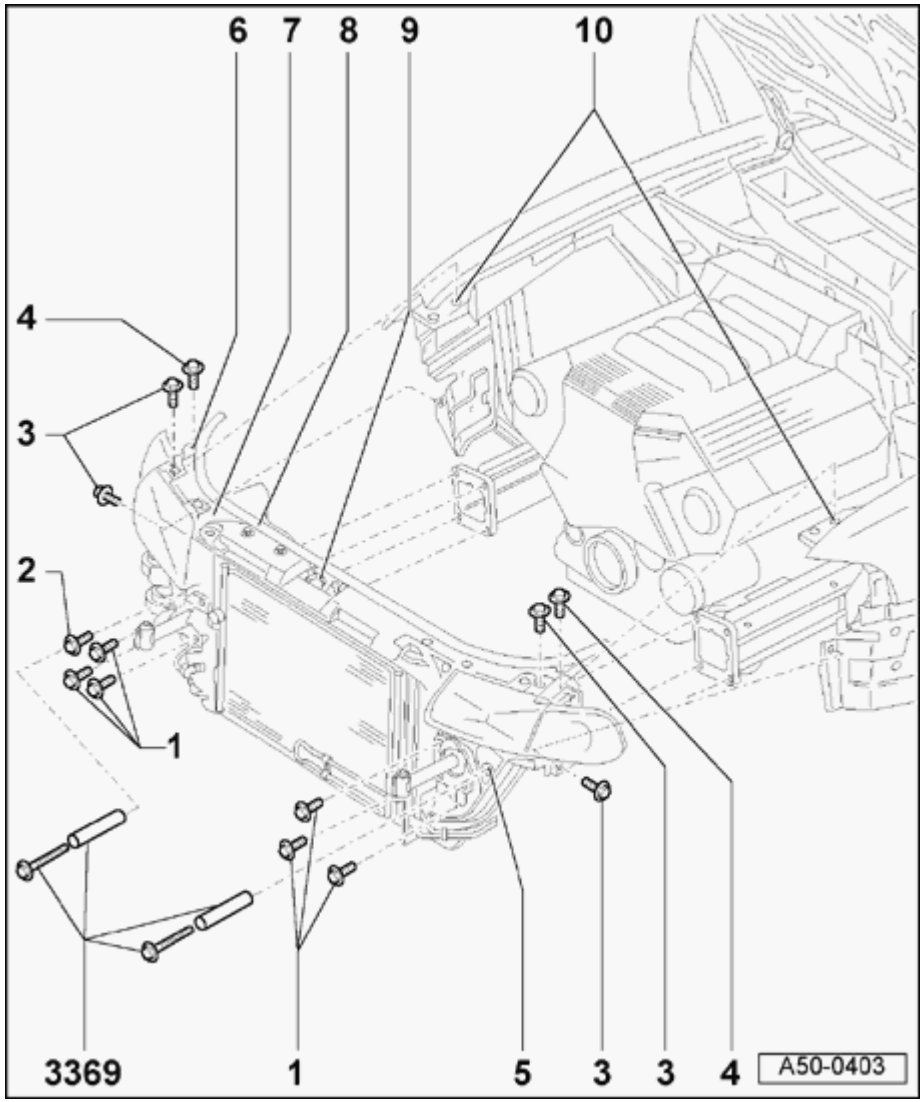
Notes:

- *Do not suspend condenser by its lines.*
- *Condenser lines must not be bent or kinked under any circumstances.*

- Remove hydraulic oil cooler only (do not disconnect lines) ⇒ Fig. 1 .

⇒ *Repair Manual, Suspension, Wheels, Steering, Repair Group 48*

50-3



Notes:

- *Do not suspend hydraulic fluid cooler by its lines.*
- *Hydraulic fluid cooler must not be bent or kinked under any circumstances*
- On vehicles with automatic transmission, remove ATF cooler

⇒ *Repair Manual, Automatic Transmission, Repair Group 37*

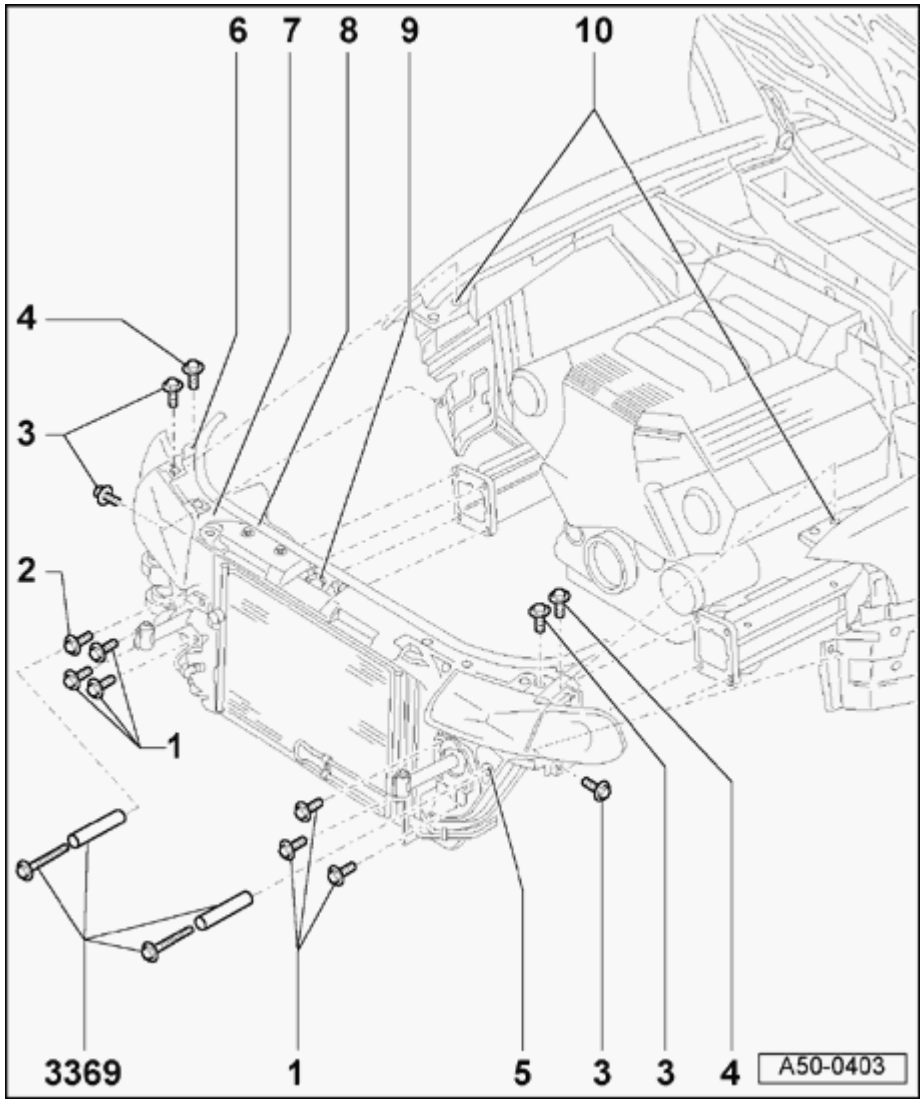
- On vehicles with charge air cooler, remove intake air duct

  - Loosen seal for hood -8- at left and right where fender meets lock carrier -7-.
  - Remove bolts -3- and -4-.

- A second mechanic is needed to support lock carrier -7-

  - Remove bolts -1- and -2-.

50-4



Installing:

- Install in reverse order of removal.
- Adjust headlights.

Adjusting:

- Center lock carrier -7- between fenders.
- If fenders and hood are also being replaced, center them in relation to one another before adjusting lock carrier.

8 - Hood seal

9 - Hood lock cable

♦ Disconnecting ⇒ page 55-10

10 - Hole in side panel

50-5

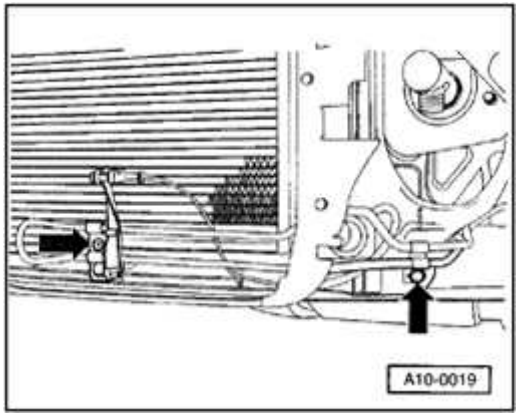


Fig. 1 Disconnecting hydraulic fluid cooler

- Remove screws for cooling line (for power steering) at engine support and transmission.

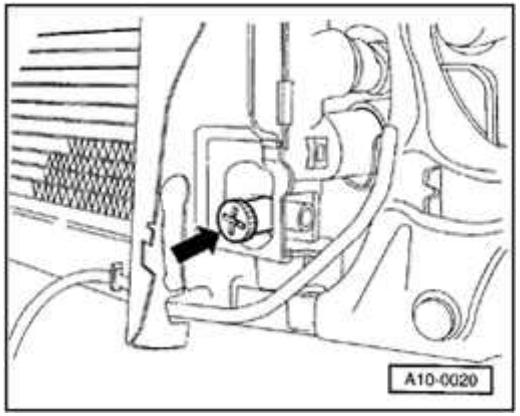


Fig. 2 Disconnecting coolant hose

- Drain coolant from radiator.
- Pull out locking element for coolant line connecting flange at bottom of radiator and remove connecting flange.
- Bleed coolant system.

⇒ *Repair Manual, General, Engine, Repair Group 19*

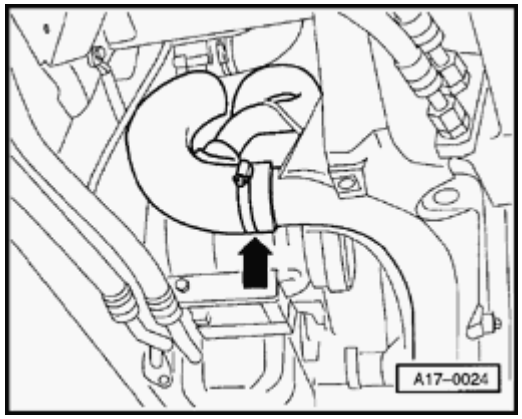
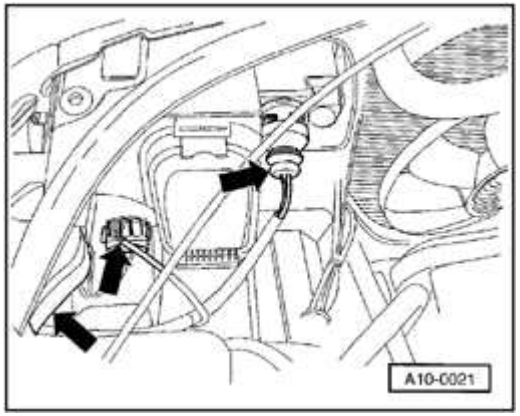


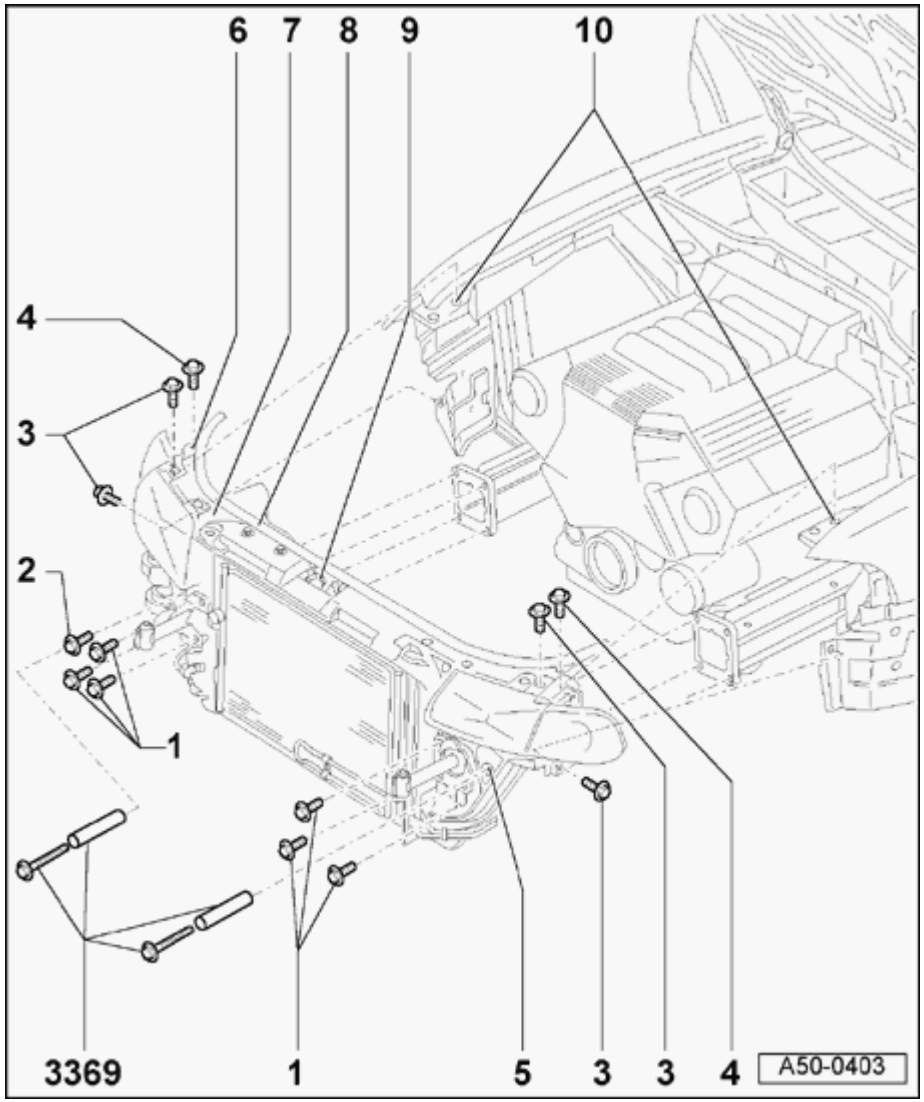
Fig. 3 Disconnect hose for charge air cooler

- On vehicles with charge air cooler, loosen bolt on hose clamp (arrow).
- Remove hose.
- Unscrew air duct to air cleaner at cowl and lift out.



- Disconnect harness connectors for headlights, headlight height adjustment and blinkers.
- Disconnect harness connector for coolant system temperature sensor for coolant fan at lower coolant hose area at radiator (left).

50-7



Lock carrier service position

Notes:

- *Do not remove noise insulation. Loosen only front quick-release screws* ⇒ *page 50-18* .
- *Bumper removed*

1 - Combination bolt

- 45 Nm (33 ft lb)

2 - Combination bolt

- 45 Nm (33 ft lb)

3 - Combination bolt

- 10 Nm (7 ft lb)

4 - Combination bolt

- 10 Nm (7 ft lb)

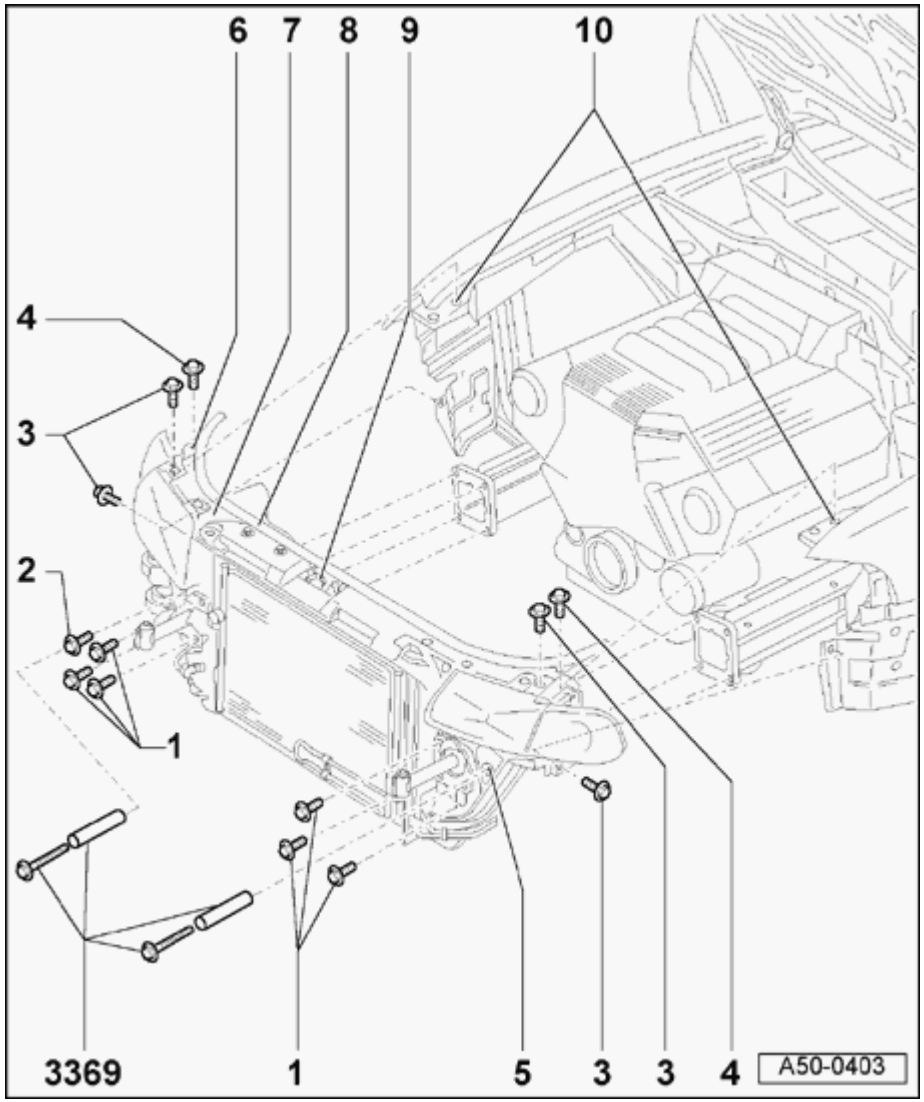
5 - Access hole for special tool

- For service position, attach special tool 3369 here

6 - Cowl attachment hole

- Attachment for service position

50-8



7 - Lock carrier

- For service position
  - Screw special tool 3369 into threaded bore -5- on left side ⇒ Fig. 1
  - Remove left and right mounting screws -1-.
  - Remove mounting bolts -3- and -4- and pull lock carrier -7- forward.
  - Secure lock carrier ⇒ Fig. 2 .

8 - Hood seal

9 - Hood lock cable

10 - Hole in side panel

Note:

After assembly of the lock carrier, check headlight positioning and adjust if necessary.

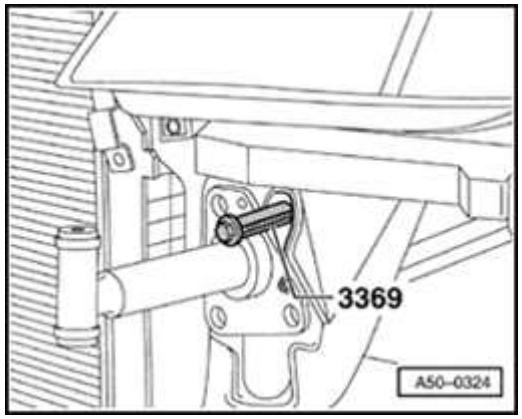


Fig. 1 Screw in special tool 3369

- Screw special tool 3369 in at left and right as shown.
- Pull lock carrier forward until rear hole in lock carrier aligns with front threaded hole in fender flange.

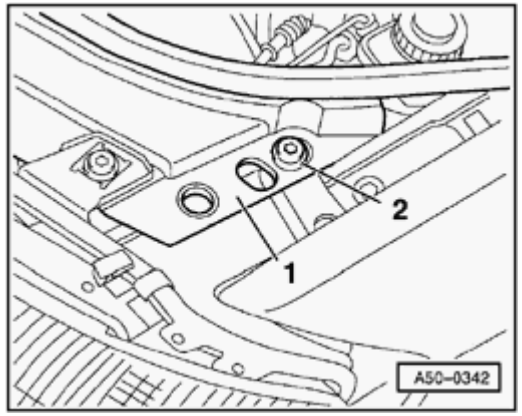
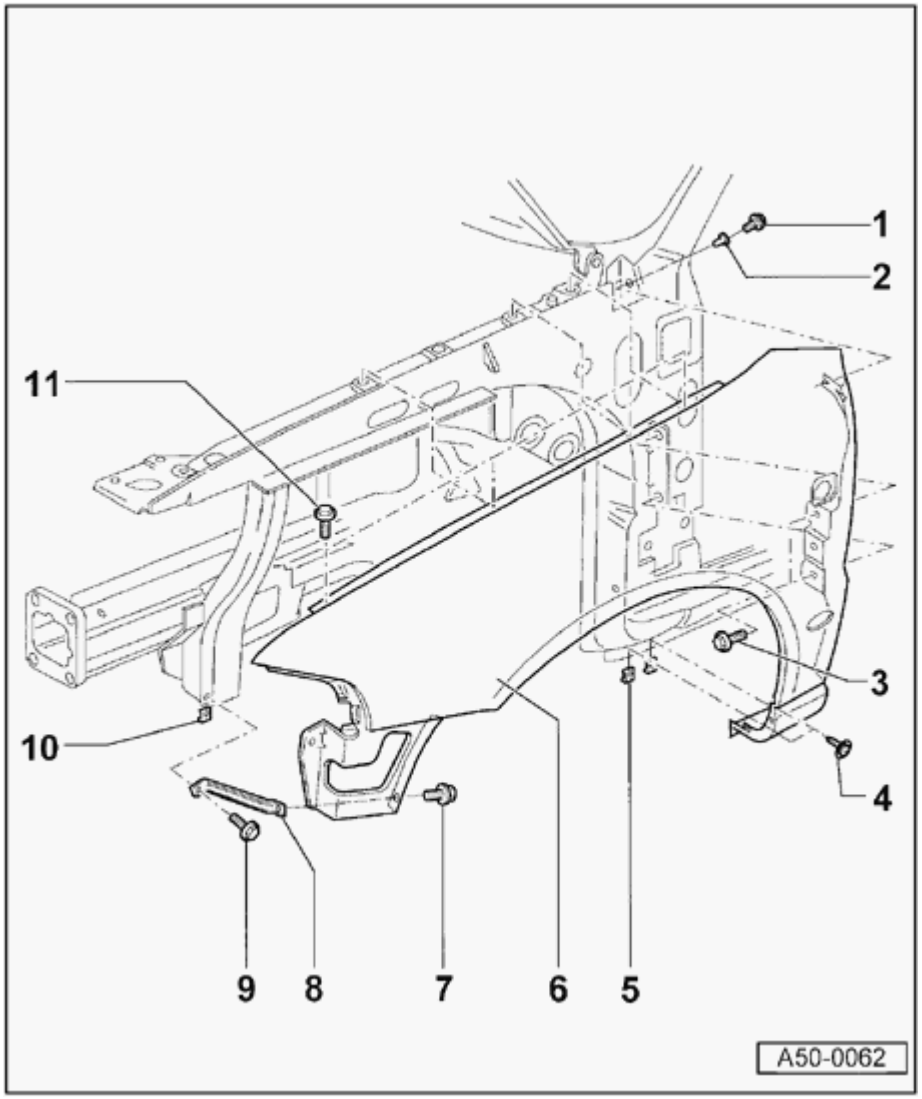


Fig. 2 Secure lock carrier

- Secure lock carrier with screws at left and right as shown.

50-10



Front fender (➢ VIN 8D XA 200 000), assembly overview

1 - Combination bolt

- 4.5 Nm (40 in. lb)

2 - Threaded rivet

- Threaded rivet is inserted using VAG1618A

3 - Combination bolts (2x)

- 7.5 Nm (66 in. lb)

4 - Phillips head screw

- 4.5 Nm (40 in. lb)

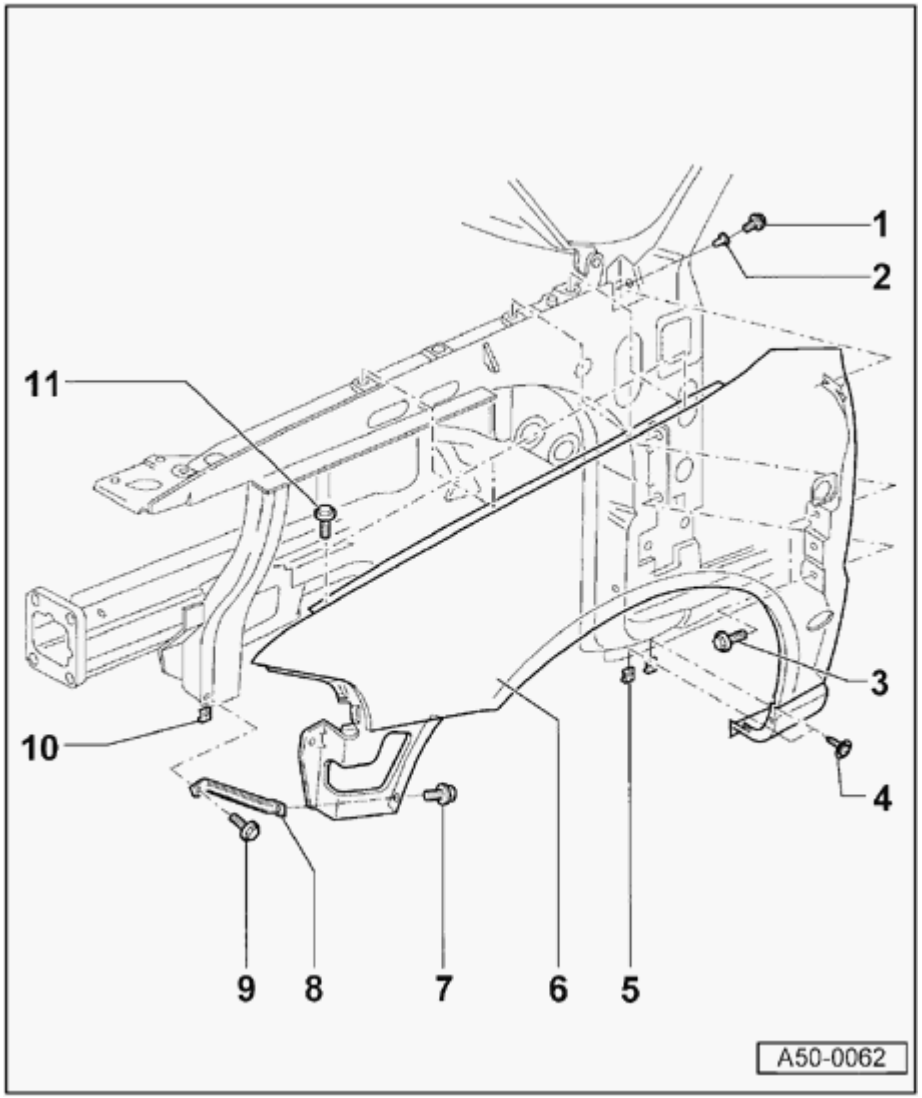
5 - Metal nut (2x)

6 - Fender

- Remove bumper ⇒ page 63-1 .
- Remove wheelhousing liner ⇒ page 66-31 .
- Remove end plate ⇒ Fig. 1 .
- Remove headlights ⇒ Repair Manual, Electrical Equipment
- Disconnect electrical connectors for side blinkers

  - Remove bolts -1-, -3-, -4-, -7-, and -11-.

50-11



7 - Combination bolt

- 7.5 Nm (66 in. lb)

8 - Bracket

9 - Combination bolt

- 7.5 Nm (66 in. lb)

10 - Metal nut

11 - Combination bolt

- 7.5 Nm (66 in. lb)

50-12

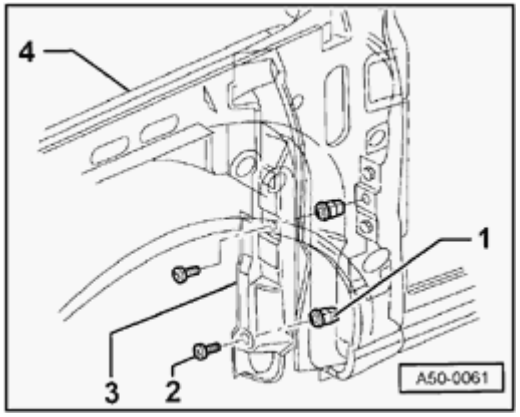


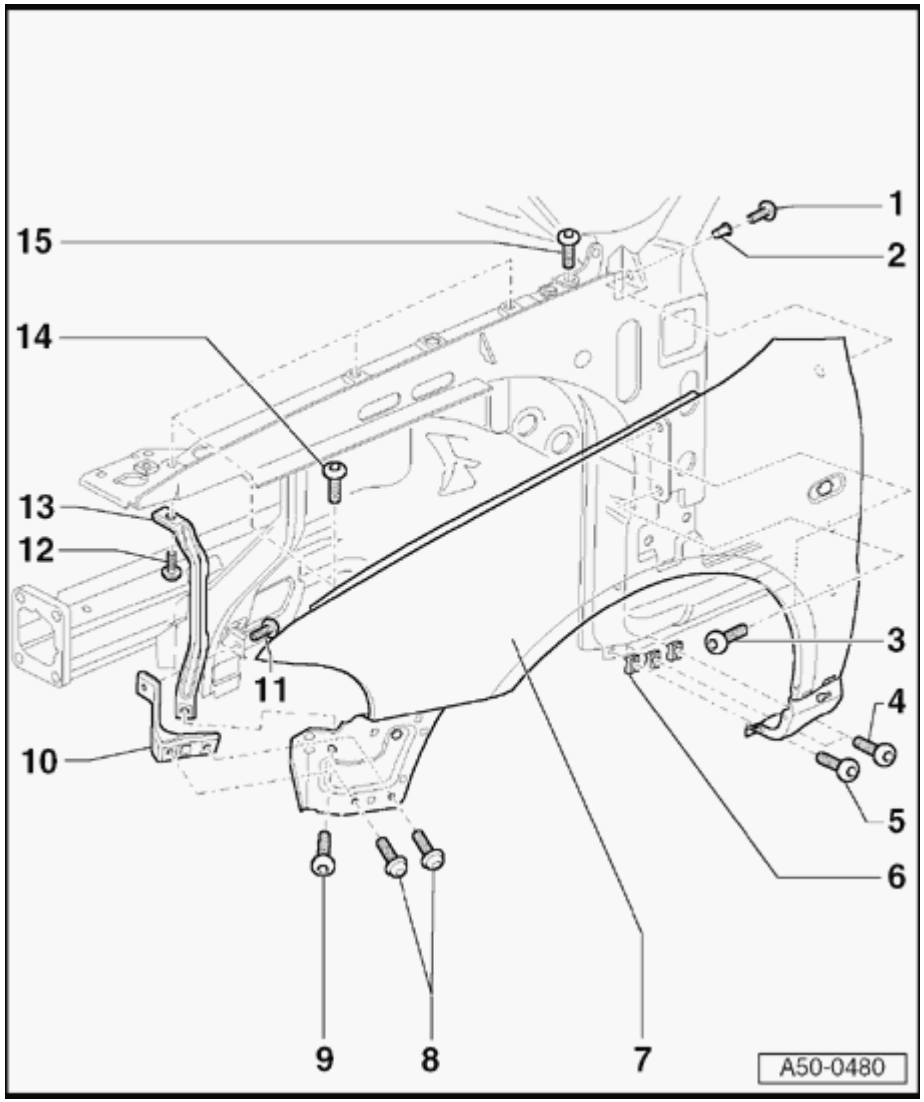
Fig. 1 Removing and installing end plate

- Remove front wheel.
- Remove wheelhousing liner ⇒ page 66-31 .
- Remove bolt -2- (2x).

  Tightening torque: 2.5 Nm (22 in. lb)
- Remove endplate -3- from fender -4-.

1 - Expanding clip (2x)

50-13



Front fender (VIN 8D XA 200 001 > and S4), assembly overview

1 - Combination bolt

- 4.5 Nm

2 - Threaded rivet

- The threaded rivet is inserted with VAG 1618 A.

3 - Combination bolts (2x)

- 7.5 Nm

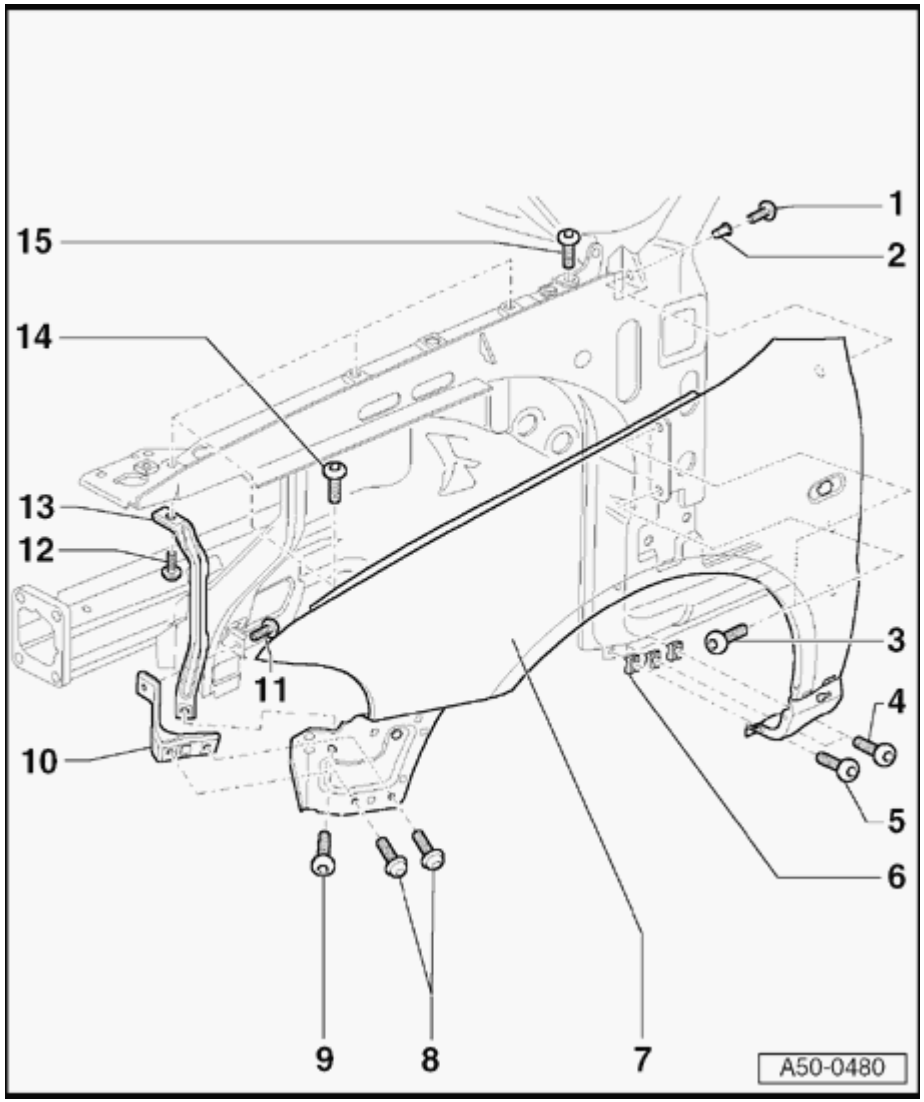
4 - Phillips-head screw

- 4.5 Nm

5 - Phillips-head screw

- Only installed for S4.
- 4.5 Nm

50-14



6 - Snap-on nut

- Only installed for S4.

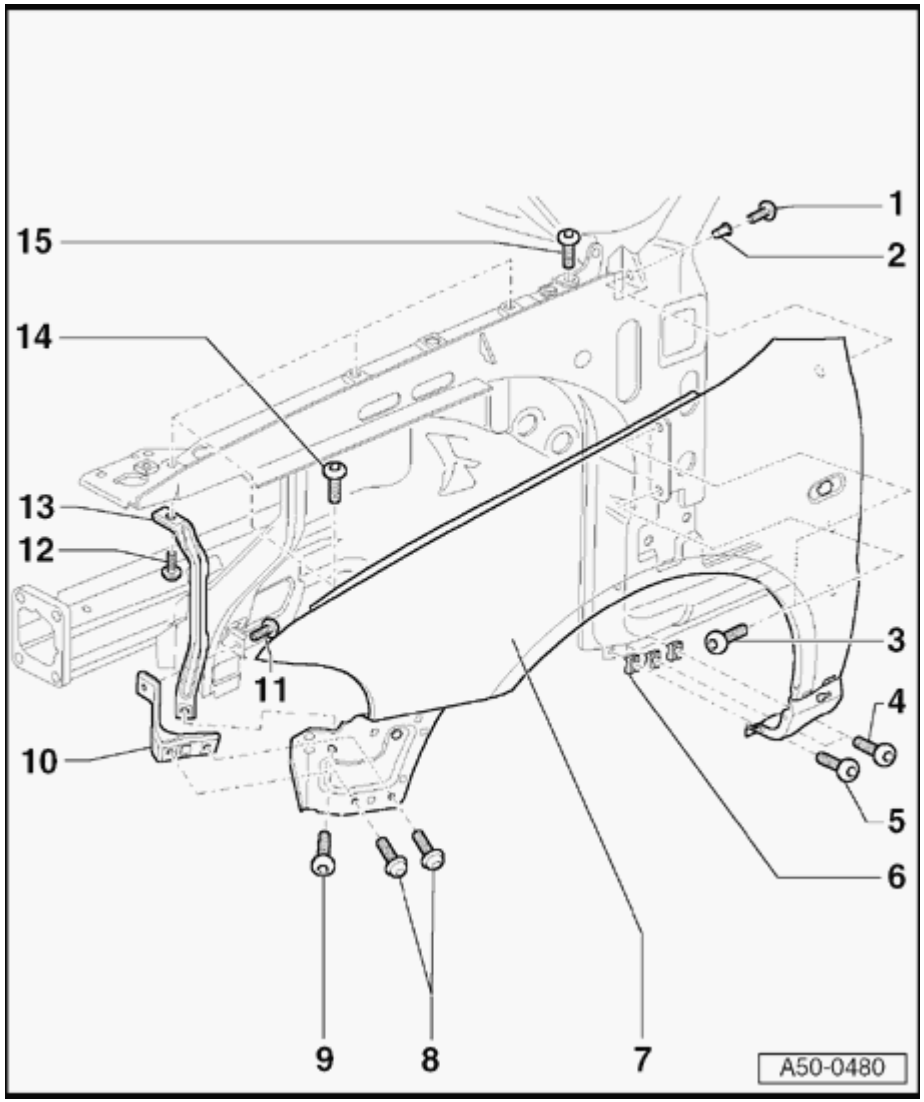
7 - Fender

- Drill additional hole at bottom for S4 fender ⇒ Fig. 2 .
- Removing:
  - Remove bumper ⇒ page 63-5 .
  - Remove wheelhousing liner ⇒ page 66-31 .
  - Remove headlights

⇒ *Repair Manual, Electrical Equipment, Repair Group 94, headlights, headlights, removing and installing.*

  - Disconnect harness connector for side turn-signal.
  - Remove end plate ⇒ Fig. 1 .
  - Remove bolts -1-; -3-; -4- (bolt -5- only for S4) -8-; -9- and -14-.

50-15



8 - Metal bolt

- ♦ 7.5 Nm

9 - Metal bolt

- ♦ 7.5 Nm

10 - Bracket

11 - Metal bolt

- ♦ 7.5 Nm

12 - Metal bolt

- ♦ 7.5 Nm

13 - Bracket

14 - Combination bolt

- ♦ 10 Nm

15 - Combination bolt

- ♦ 7.5 Nm

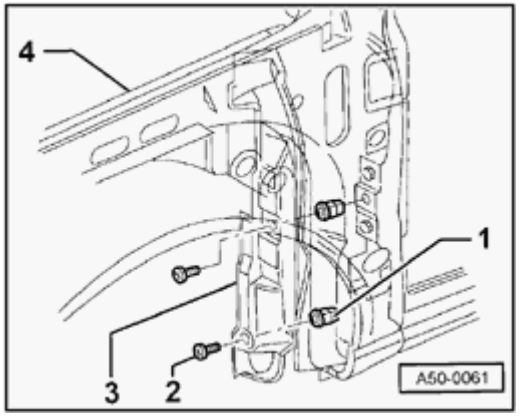


Fig. 1 Removing and installing end plate

- Remove front wheel.
- Remove wheelhousing liner ⇒ page 66-31 .
- Remove bolt -2- (2x).

  Tightening torque: 2.5 Nm
- Remove end plate -3- from fender -4-.
- Expanding clip -1- (2x).

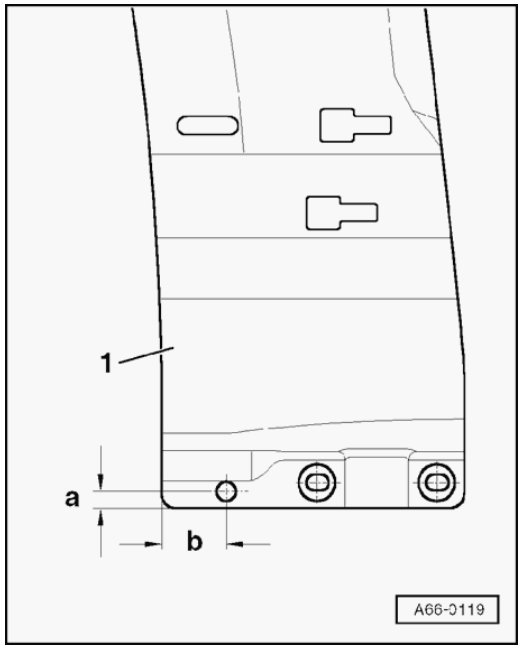


Fig. 2 Drilling hole for S4 fender

Note:

For part replacement, drill hole before painting.

- Drill 7 mm diameter hole in fender. Dimension -a- = 22mm and -b- = 8mm.
- Restore corrosion protection at edges of hole.

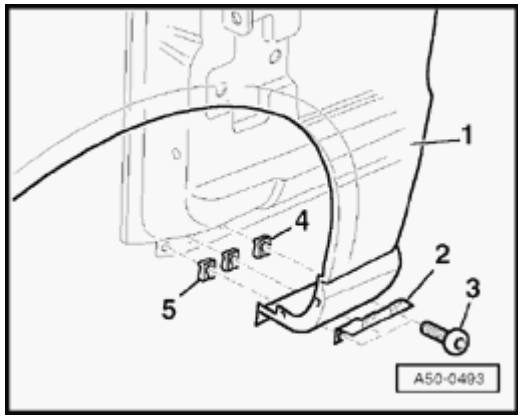
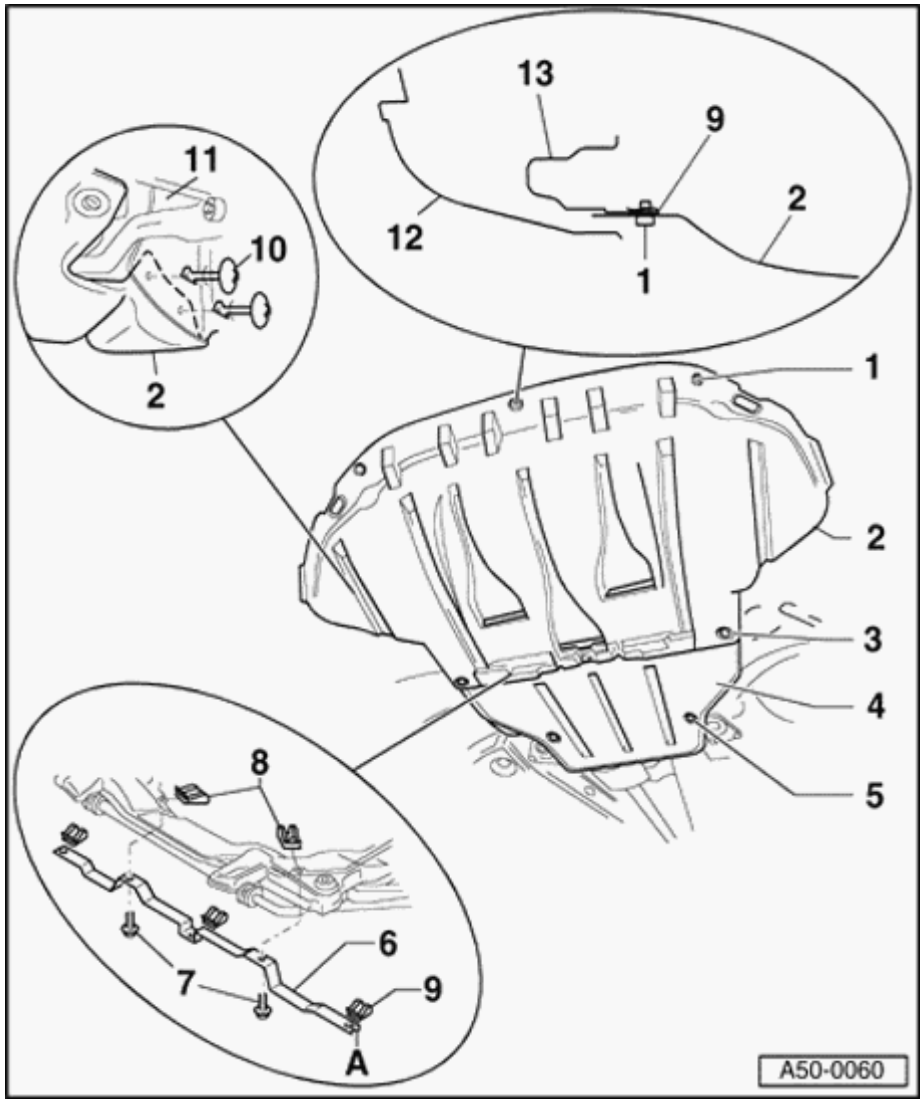


Fig. 3 Lower fender mount (S4)

- Slide speed nuts -4- onto door sill from bottom.
- Speed nuts -5- only for S4
- Secure fender -1- at bottom using reinforcing bracket -2- and bolts -3-.

50-18



Noise insulation panel, assembly overview

1 - Quick-release screw

- Remove only this quick release screw for service position
- Three pieces
- 2 Nm (18 in. lb)

2 - Front noise insulation

3 - Quick release screw

- Three pieces
- If rear noise insulation panel is also - 4 - being installed, then longer quick-release screws must be used
- 2 Nm (18 in. lb)

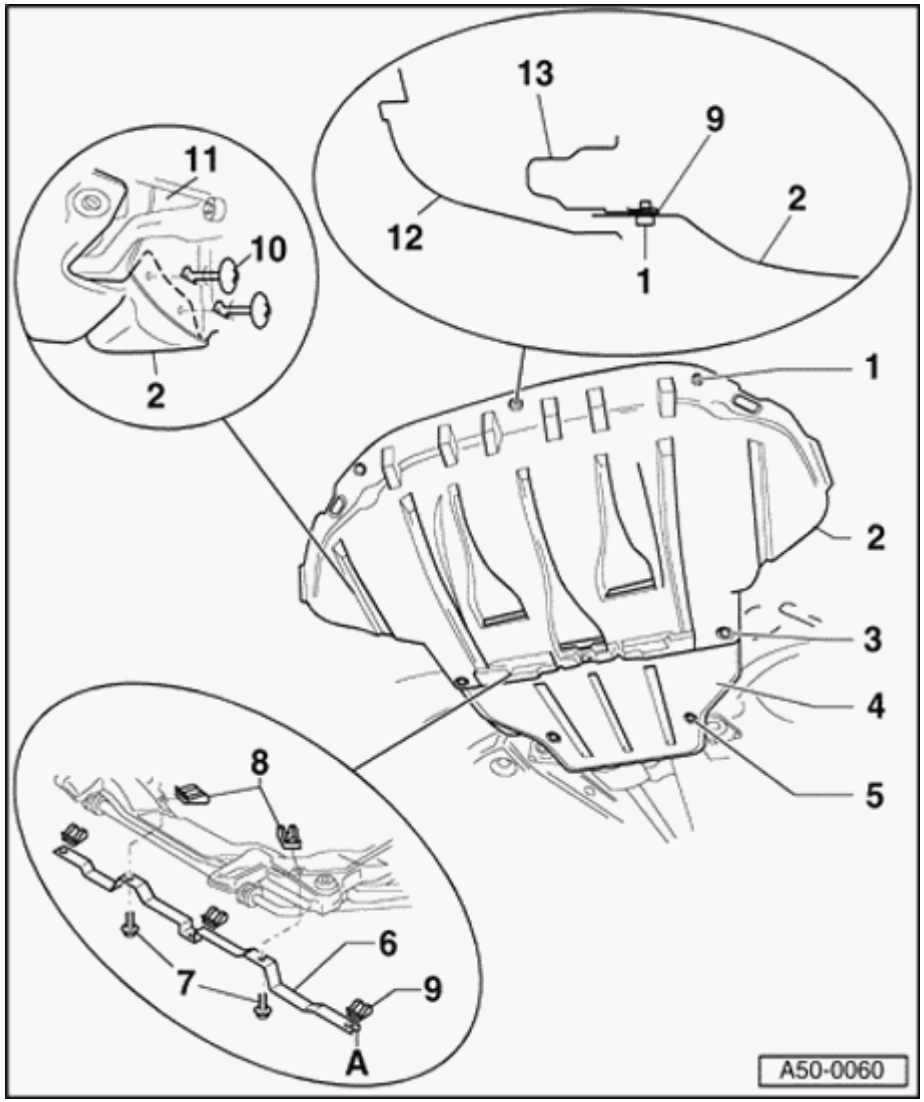
4 - Rear noise insulation panel

- Only installed for certain engine types
- Installed over noise insulation panel -2-

5 - Quick-release screw

- Two pieces
- 2 Nm (18 in. lb)

50-19



6 - Mounting for noise insulation panel

- Position -9- must face left side of vehicle

7 - Bolt

- Two pieces
- 7.5 Nm (66 in. lb)

8 - Plate nut

- Two pieces

9 - Plate nut

- Three pieces

10 - Clamping pin

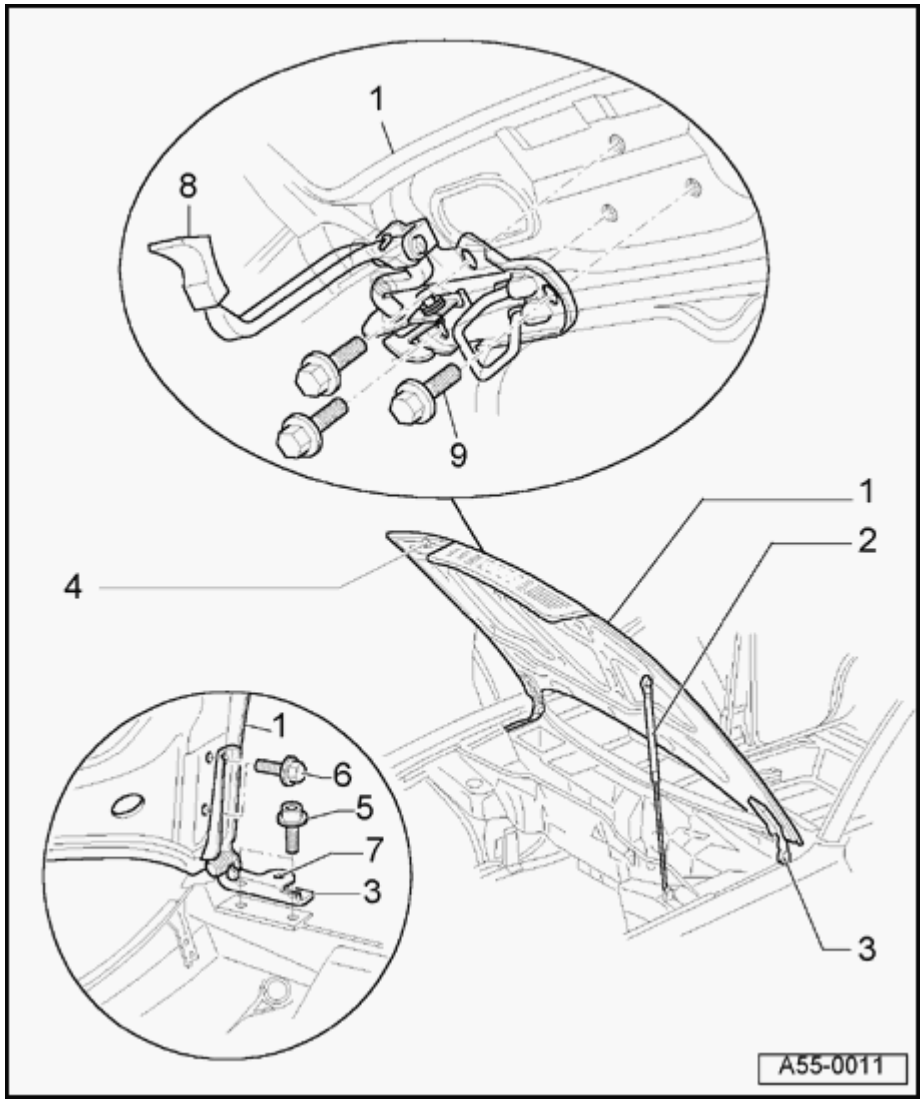
- Two pieces

11 - Wheelhousing liner

12 - Bumper

13 - Lock carrier with attachments

55-1



Hood

Hood, removing, installing and adjusting

1 - Hood

Removing:

- Disconnect hose to windshield washer system and unclip.

- Second person is needed to support and lift hood during removal

- Disconnect gas-filled strut -2- from hood -1-.

- Remove bolts -6-.

- Remove hood.

Installing:

- Install in reverse order of removal.

Adjusting:

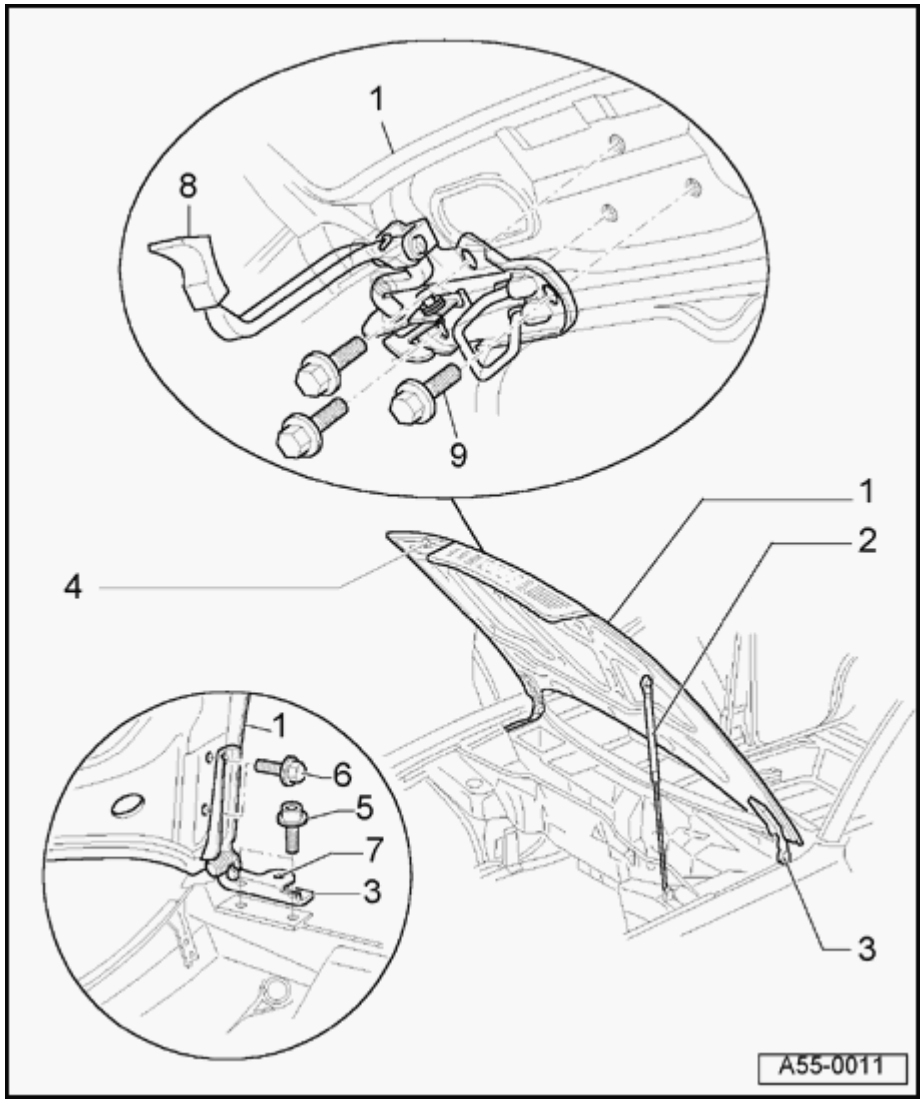
- Align hood -1- between fenders.

- Adjust height of hood at hood lock ⇒ Fig. 4 ⇒ Page 55-7 .

- Hood can be adjusted for height relative to fenders by adjusting stop buffers -4- ⇒ Fig. 2 ⇒ Page 55-6

- Panel gap dimensions ⇒ Fig. 5 ⇒ Page 55-7

55-2



2 - Gas-filled strut

- Removing ⇒ page 55-4
  - To install, press gas-filled strut onto ball stud.
  - Install with tube end of strut at body of vehicle.
- Releasing pressure ⇒ page 55-5

3 - Hood hinge

- Hood -1- must be removed or propped up securely
  - To remove, remove bolts -5-, -6- and -7-.

4 - Stop buffer

- Adjusting ⇒ Fig. 2 ⇒ Page 55-6

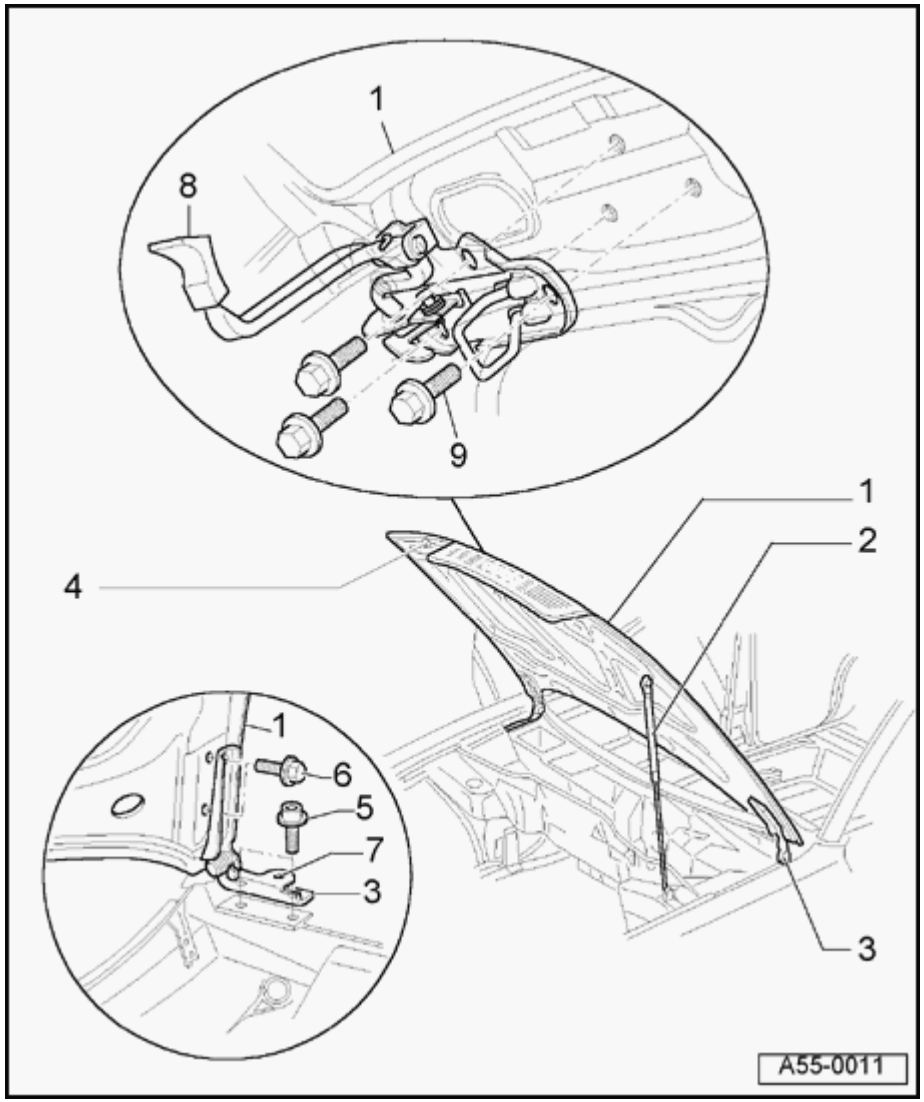
5 - Bolts (2x)

- 21 Nm (15 ft lb)

6 - Bolts (2x)

- 21 Nm (15 ft lb)

55-3



7 - Bolt

- 7.5 Nm (66 in. lb)

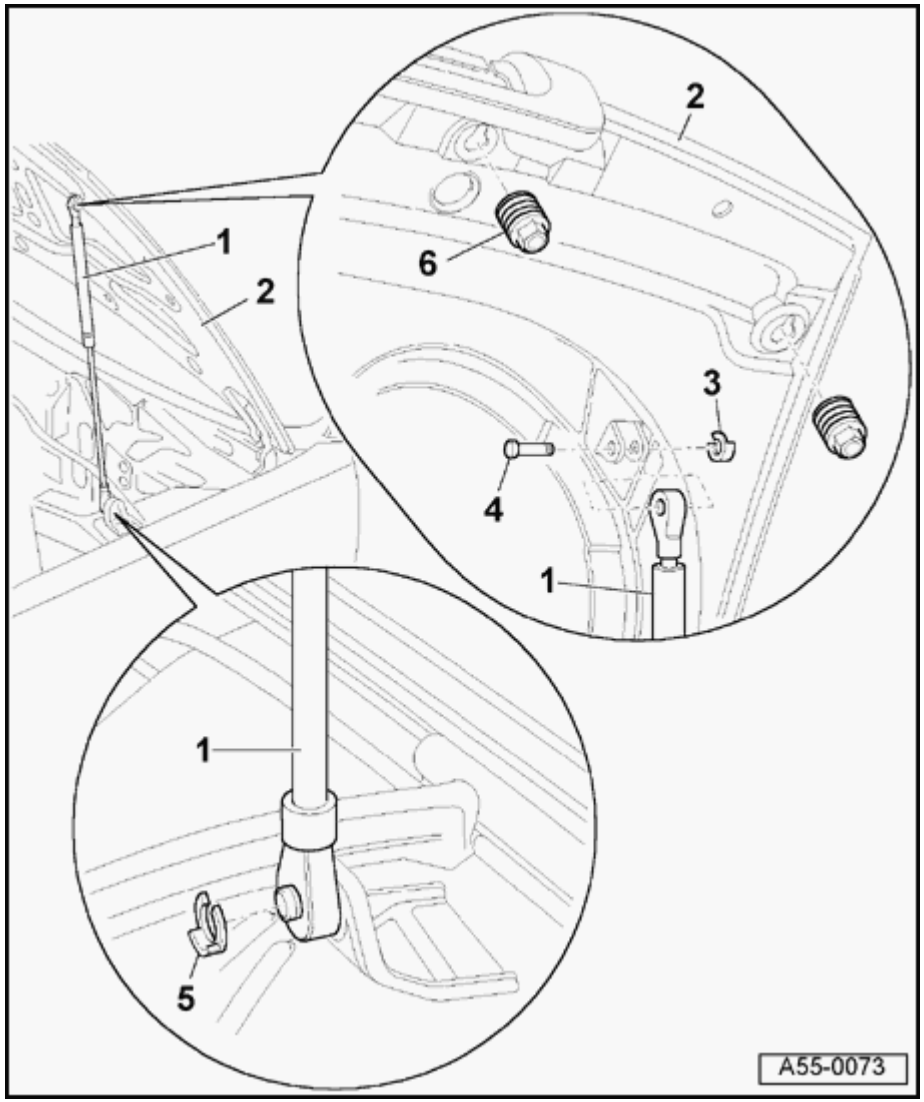
8 - Hood lock release

- To remove, remove bolt -9-.
- Installing ⇒ Fig. 3 ⇒ Page 55-6
- Hood lock release can only be adjusted in direction of travel

9 - Bolts (3x)

- 8 Nm (71 in. lb)

55-4



Gas-filled strut, removing and installing

1 - Gas-filled strut

Removing:

- Prop up or secure hood -2- in open position.
- Remove securing clip -5-.
- Also remove clip -3-.
- Lift hood slightly, remove bolt -4- and remove gas-filled strut.

Installing:

- Install with tube end of strut at body of vehicle.

2 - Hood

3 - Securing clip

4 - Pins

5 - Securing clip

6 - Stop buffer

- Hood height adjustment ⇒ Fig. 2

55-5

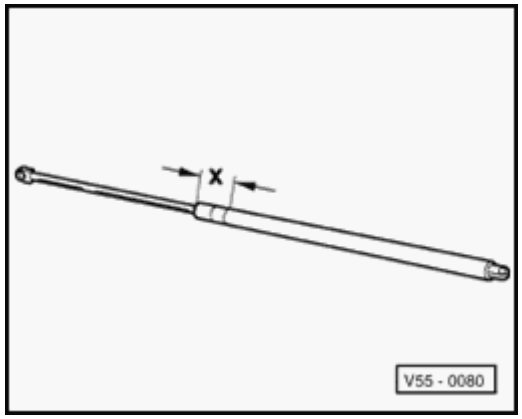


Fig. 1 Releasing gas from strut

- Clamp gas-filled strut in vice area -x-.

  Dimension -x-: 50 mm (2 in.)

- Using saw, cut into cylindrical part of strut at point within first third of cylinder's length (measured from piston rod end of cylinder).

WARNING!

Clamp only in the area shown; otherwise there is a risk of an accident!

Note:

Always wear eye protection when performing this procedure. Cover the sawing area with a clean rag to contain any escaping fluid.

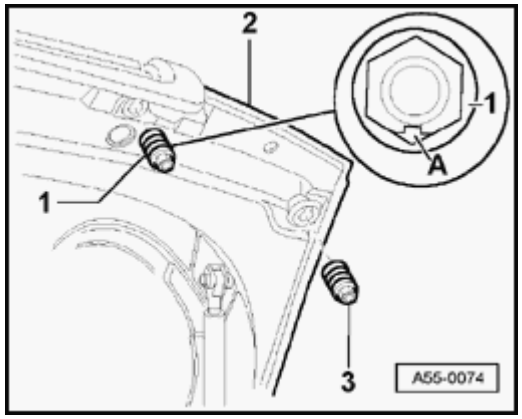


Fig. 2 Adjusting height of stop buffers

- When hood is closed, stop buffer -3- (2x external) must rest lightly on the lock carrier.

Note:

The stop buffers can be used for adjusting the height of the hood.

- Turn stop buffer -1- (2x internal) in hood -2- until impact, then unscrew one half rotation.

  Marking -A- must point toward rear of vehicle.

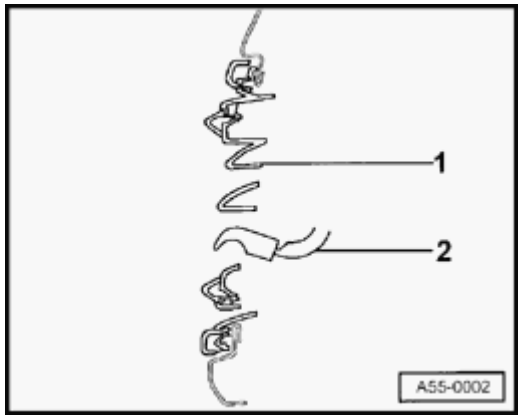


Fig. 3 Hood latch release

- Hood lock actuator -2- must be flush with radiator grill when closed.
- Hood lock actuator must be centrally positioned relative to radiator grill.

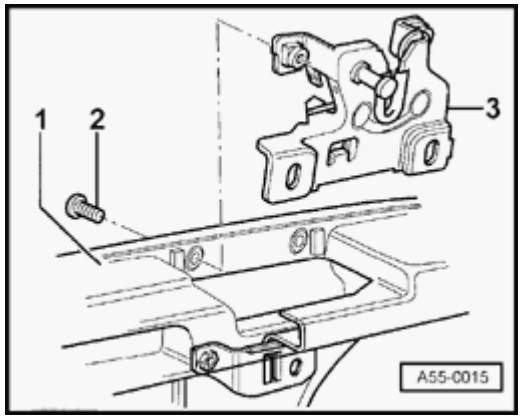


Fig. 4 Removing and installing lower section of hood lock

- Disengage hood lock cable ⇒ page 55-10 .
- Remove bolts -2- (4x).

  Tightening torque: 10 Nm (7 ft lb)
- Remove lower section of lock -3-.

1 - Lock carrier

- To adjust hood, move lower section of lock up or down as required.

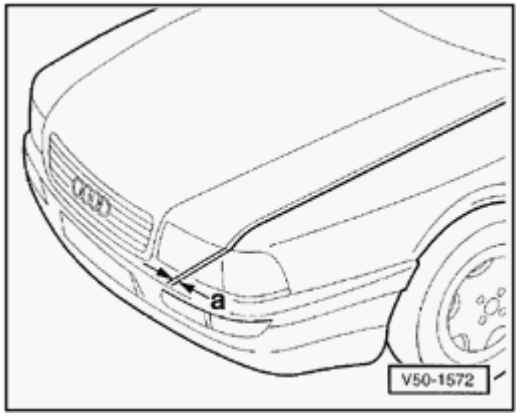


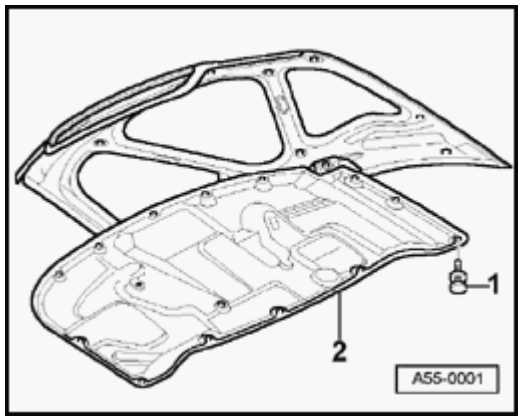
Fig. 5 Panel gap dimensions

Gap dimensions can be checked using 3371 adjustment gauge.

Dimension -a- = 3.0 mm

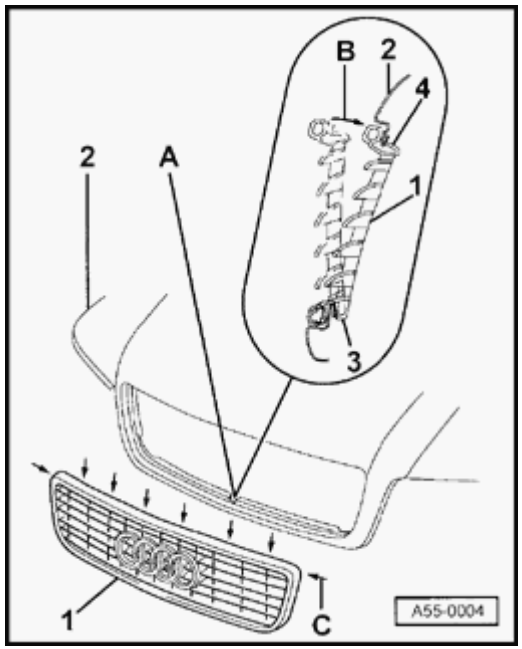
55-8

Hood lining, removing



- Remove clips -1- (17x).
- Remove lining -2-.

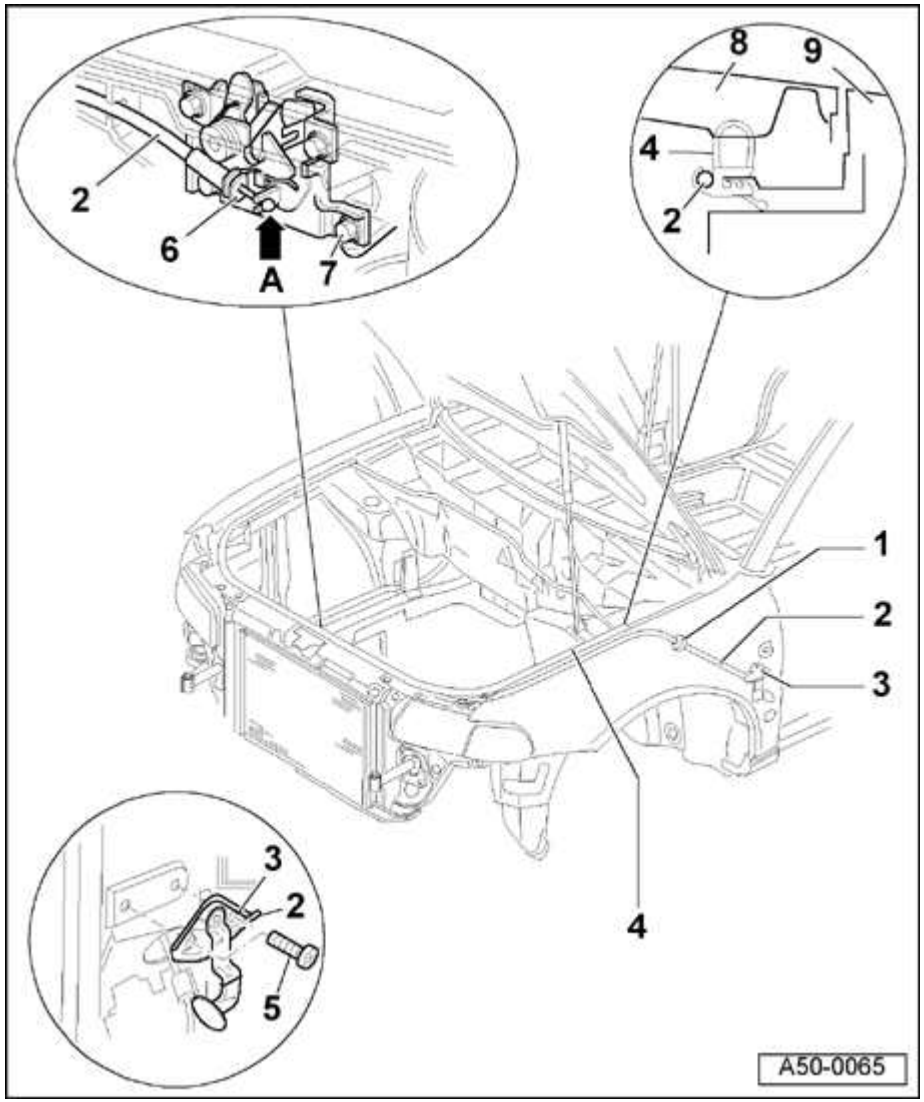
Radiator grill, removing and installing



Mounting point -A- centers radiator grill in hood.

- Place radiator grill -1- in guide notch -3- and clip into hood -2- in direction shown by arrow -B-.
- Arrows -C- designate all retaining tabs -4-. Retaining tabs must be unclipped individually during grill removal.

55-10



Hood lock cable, removing and installing

1 - Grommet

2 - Hood lock cable

Removing:

- Remove storage compartment on driver's side.

⇒ *Repair Manual, Body-Interior, Repair Group 68*

- Remove bolts -3-.
- Detach cable -2- at support -6- and disengage from attachment point -A-.
- Remove cable -2- from guide channel in seal -4- and pull cable through bulkhead into interior of vehicle.

Installing:

- Install in reverse order of removal.

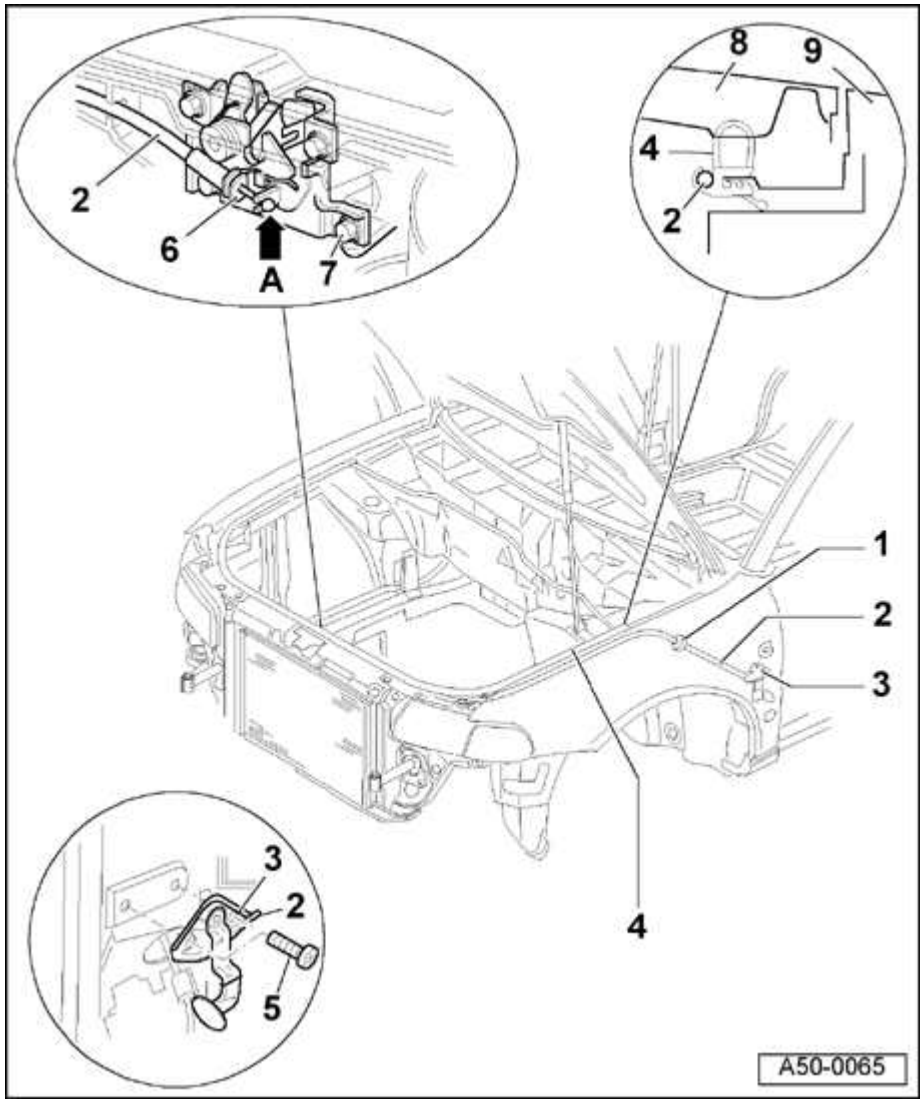
3 - Hood lock release

4 - Seal

5 - Bolt

- Qty: 2
- 4 Nm (35 in. lb)

55-11



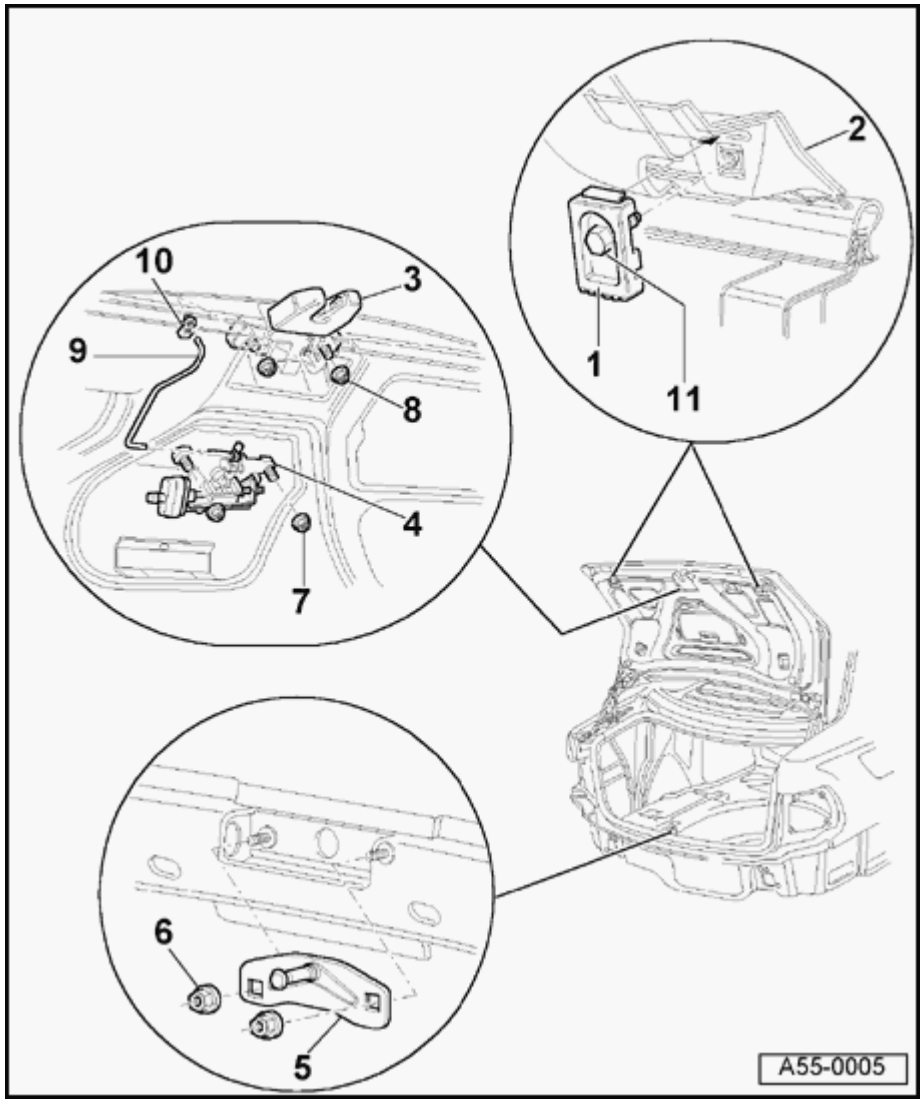
6 - Attachment point for hood lock cable

7 - Bolt

- Qty: 4
- 10 Nm (7 ft lb)

8 - Hood

55-12



Rear lid (➢ m.y. 1999 VIN 8D XA 200 000)

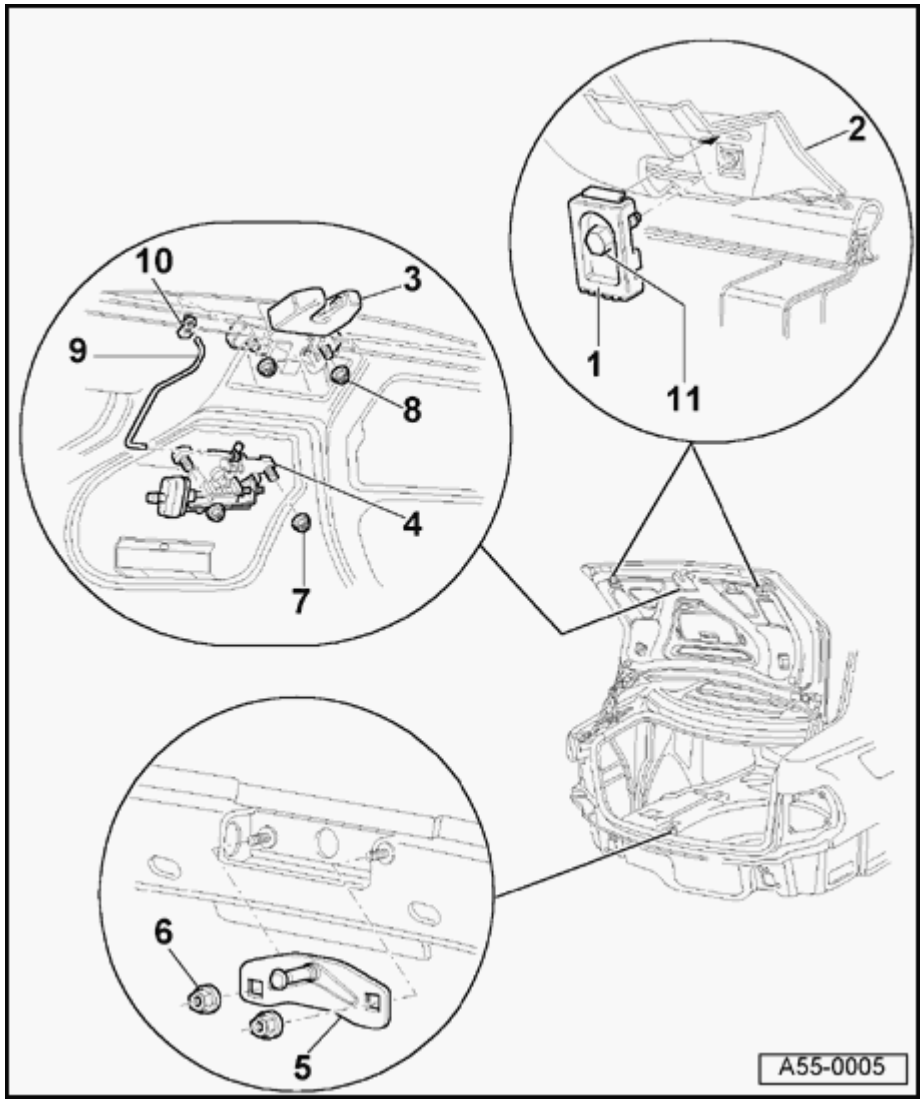
Rear lid and rear lid lock, removing, installing and adjusting

1 - Stop buffer (2x)

Adjusting:

- Loosen bolt -11- and detach stop buffer.
- Tighten bolt -11- finger-tight (it must still be possible to move stop buffer).
- Carefully close rear lid until lid is flush with rear side panels.
- Carefully open rear lid -3-.
- Pull stop buffer -1- out two catches (1 mm preload) and tighten bolt -2- to 6 Nm ± 0.5 Nm (53 in. lb ± 4 in. lb).

55-13



2 - Rear lid

Removing:

- Remove warning triangle and holder ⇒ page 55-21 .
- Remove rear lid lining.
- Disconnect and unclip electrical wiring harness connectors.
- Unclip vacuum line for central locking system.

• Second person is needed to remove lid

- Remove nuts for rear lid hinges ⇒ page 55-16 .

Installing:

- Install in reverse order of removal.

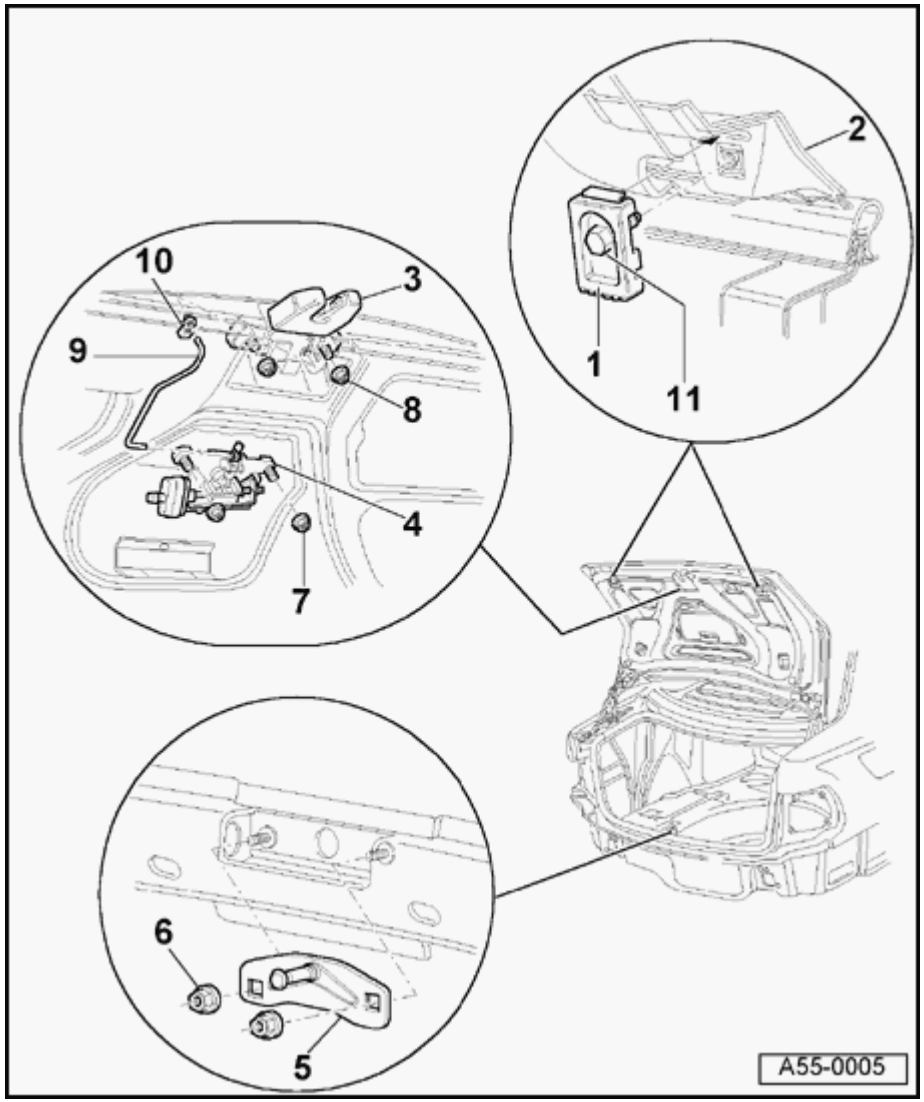
Adjusting:

- Use rear lid hinges to center and adjust height of rear lid ⇒ page 55-17 .
- Adjust stop buffers -1-.
- Adjust striker plate -5-.
- Center lid according to panel gap dimensions ⇒ page 55-20 .

3 - Rear lid lock

- Unclip operating rod -9-.

- Unscrew nuts -8-.



4 - Locking cylinder

- Remove warning triangle and holder ⇒ page 55-21 .
- Remove rear lid lining.
- Disconnect vacuum line for central locking system.
- Disconnect harness connectors.
- Unclip operating rod -9-.
- Remove bolts -7-.

5 - Striker plate

- Unscrew nuts -6-.

Adjusting:

- Tighten nuts -6- finger-tight (it must still be possible to move striker plate).
- Carefully close rear lid until lid is flush with rear side panels.
- Carefully open lid and tighten nuts -6-.

6 - Hex nut

- ♦ 8 Nm (71 in. lb)

7 - Hex nut

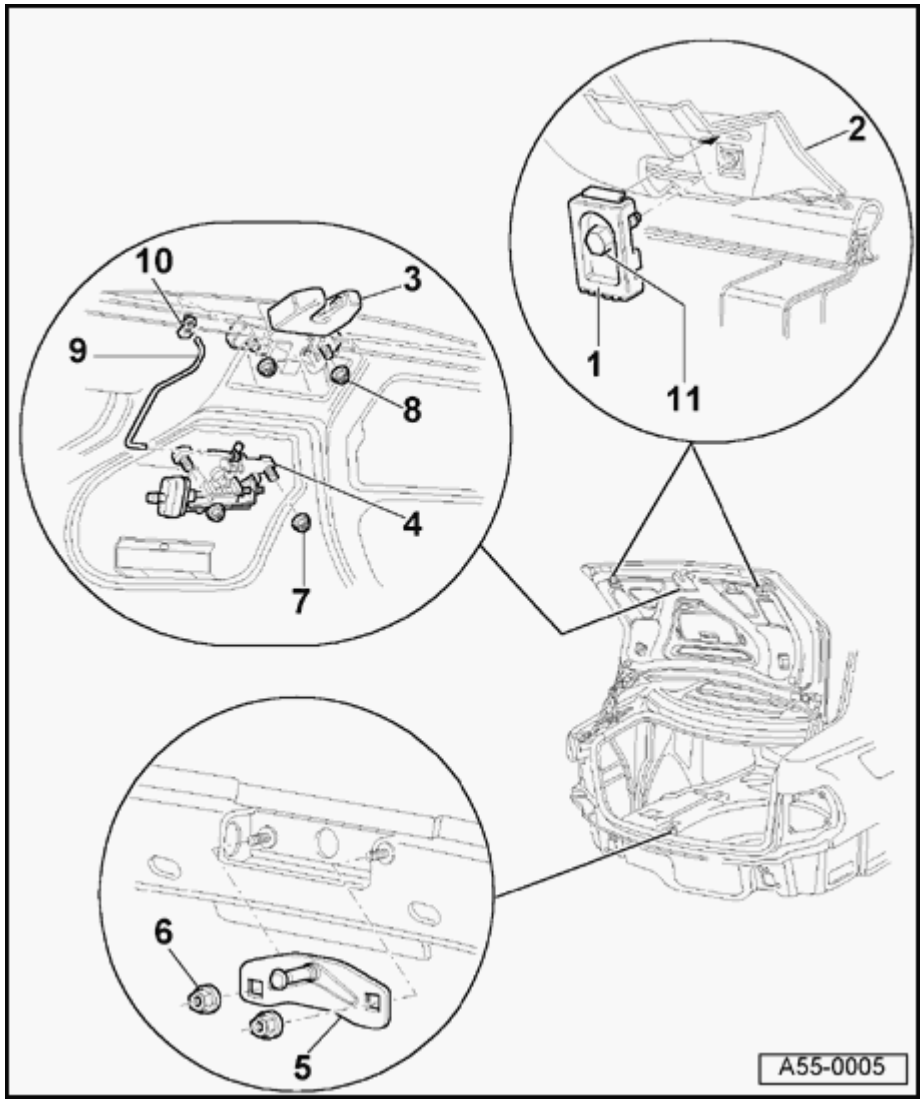
- ♦ 8 Nm (71 in. lb)

8 - Hex nut

- 6 Nm (53 in. lb)

9 - Operating rod

55-15



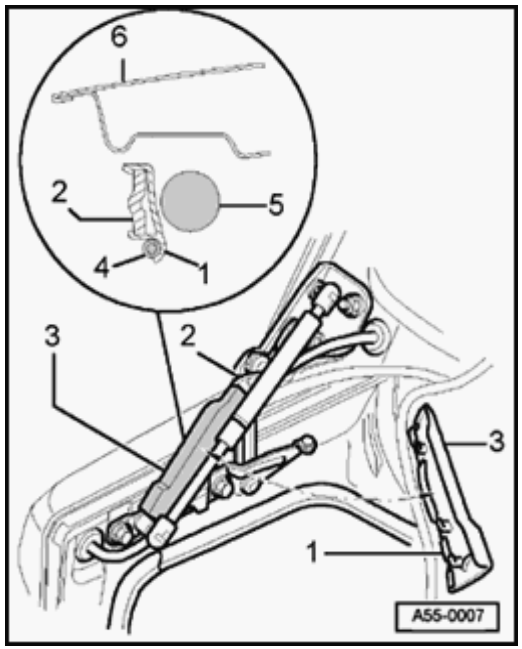
10 - Retaining clip

11 - Hex bolt

- 6 Nm (53 in. lb)

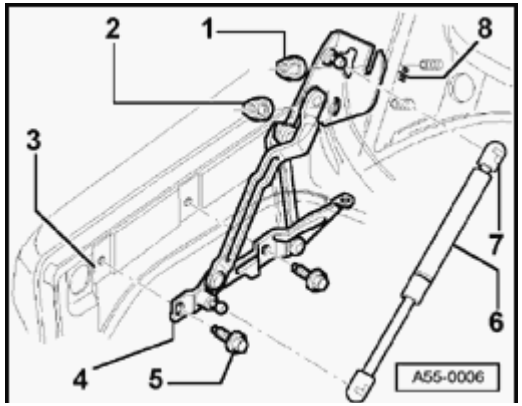
Rear lid hinge, removing and installing

Rear lid hinge cover



- Insert wiring and tubing for central locking system -4- into lower recess of cable guide at cover -1-.
- From below, attach cover -3- for rear lid hinge between gas-filled strut -5- and hinge lever, and clip onto hinge lever -2- at top so it engages audibly.

Removing and installing rear lid hinge



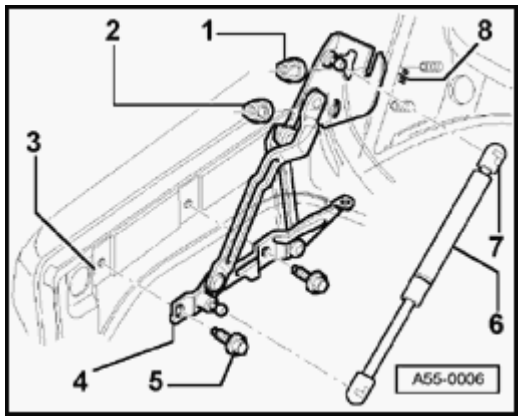
- Loosen nuts -1- at top on left and right.

  Tightening torque: 21 Nm (15 ft lb)
- Remove nuts -2- at bottom on left and right.

  Tightening torque: 21 Nm (15 ft lb)
- Prop up or secure lid in open position.

- Remove bolts -5- (2x).

  Tightening torque: 21 Nm (15 ft lb)

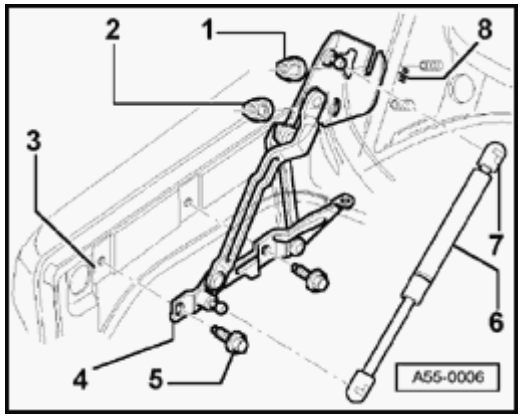


- Lift lid slightly and remove hinge -4-.

Note:

For easier adjustment of the rear lid hinge, use graduations -3- and -8- marked on the hinge and the rear lid.

Removing and installing gas-filled strut



- Using screwdriver, push back retaining springs -7- slightly at both ends of gas-filled strut and clip or unclip gas-filled strut as desired.

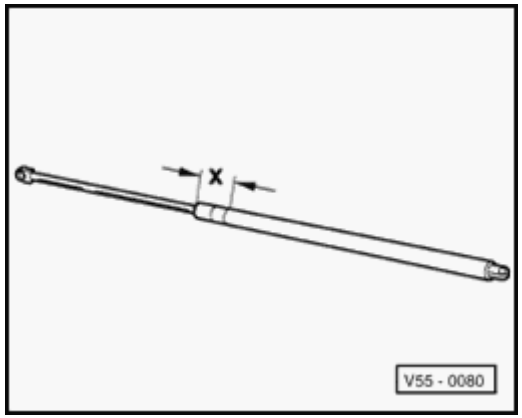
Note:

When removing or installing the gas-filled strut, push back the opened rear lid slightly beyond its normal position, being careful not to damage components.

Installing

- Clip in gas-filled strut at bottom first, then at top.
- Install with tube end of strut at rear lid.

55-18



Releasing gas from strut

- Clamp gas-filled strut in vice area -x-.

  Dimension -x- = 50 mm (2 in.)

- Using saw, cut into cylindrical part of strut at point within first third of cylinder's length (measured from piston rod end of cylinder).

WARNING!

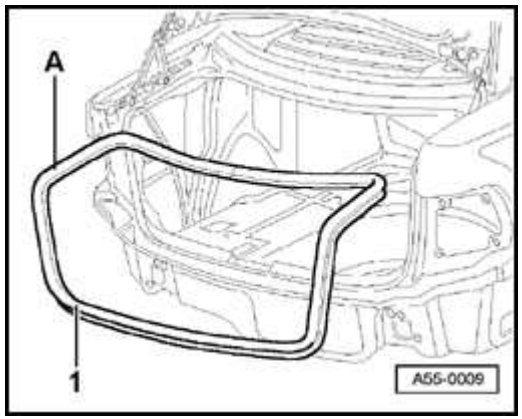
Clamp only in the area shown; otherwise there is a risk of an accident!

Note:

Always wear eye protection when performing this procedure. Cover the sawing area with a clean rag to contain any escaping fluid.

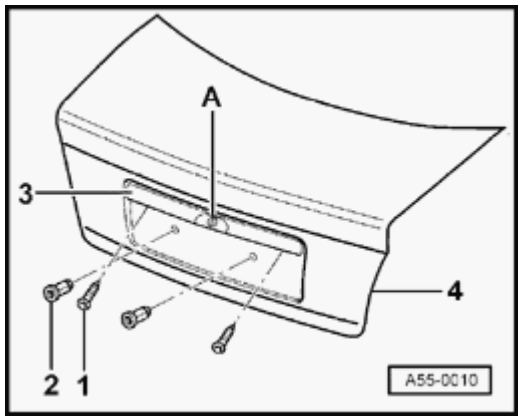
55-19

Rear lid seal, installing



➢ The butt joint -A- of the rear lid seal must be aligned with the ball socket of left hinge.

Removing and installing handle mechanism for rear lid



- Remove bolts -1- (2x).

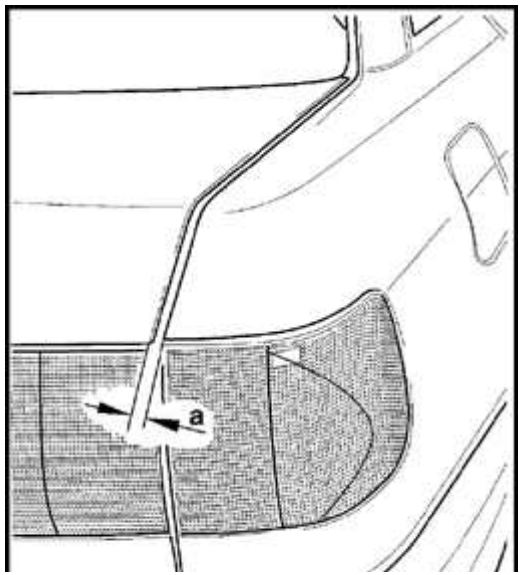
  Tightening torque: 2.5 Nm (22 in. lb)

- Attachment point -A-; remove nuts (2x) for lock cylinder on inside of lid.

  Tightening torque: 6 Nm (53 in. lb)

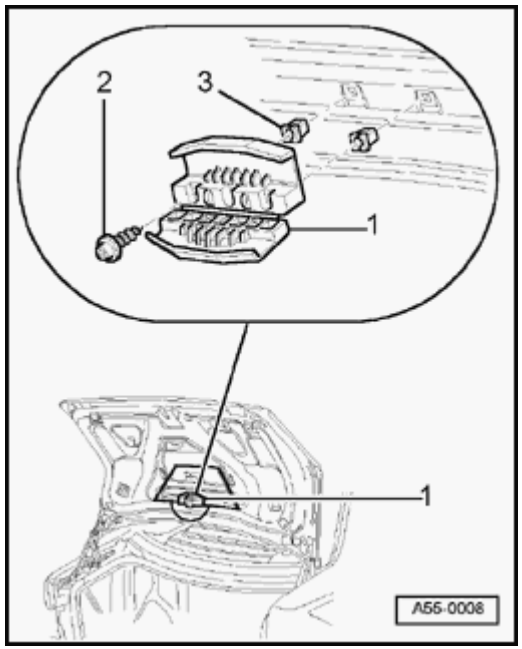
- Pull handle mechanism -3- out enough that harness connectors for both license plate lights can be disconnected.
- Remove handle mechanism.
- Install nuts -2- (2x) using special tool VAG1618A.

Panel gap dimensions



-a- = 3.0 mm

55-21



Removing and installing holder for warning triangle

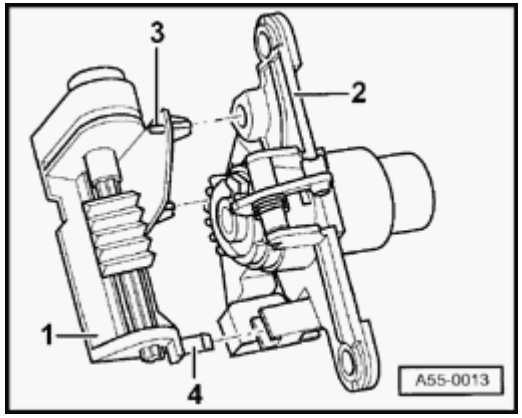
- Remove warning triangle.
- Remove bolts -2- (2x).

  Tightening torque: 2 Nm

1 - Holder

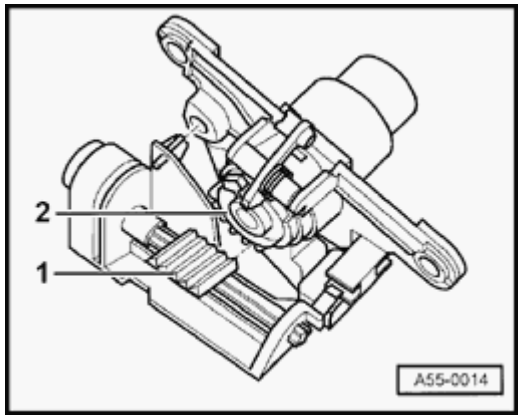
3 - Expanding clips (2x)

Rear lid lock actuator, removing and installing



Removing

- Remove lock cylinder ⇒ page 55-14 .
- Push out retaining pins -3- (2x).
- Push tab -4- back and disconnect.
- Remove rear lid lock actuator -1-.



Installing

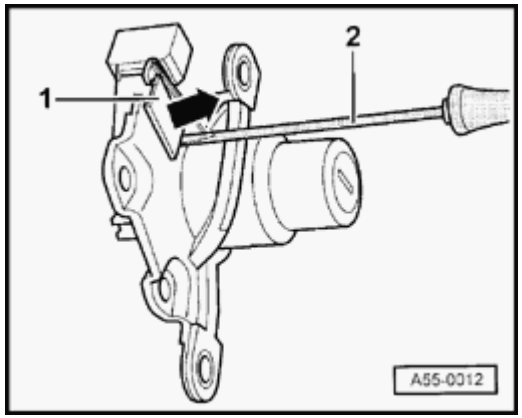
- Set lock cylinders in "open" position.
- Slide ridged plate -1- to left.

  First ridge on plate -1- must snap into first groove on grooved segment -2-.

55-23

Rear lid microswitch, removing

- Remove lock cylinder ⇒ page 55-14 .

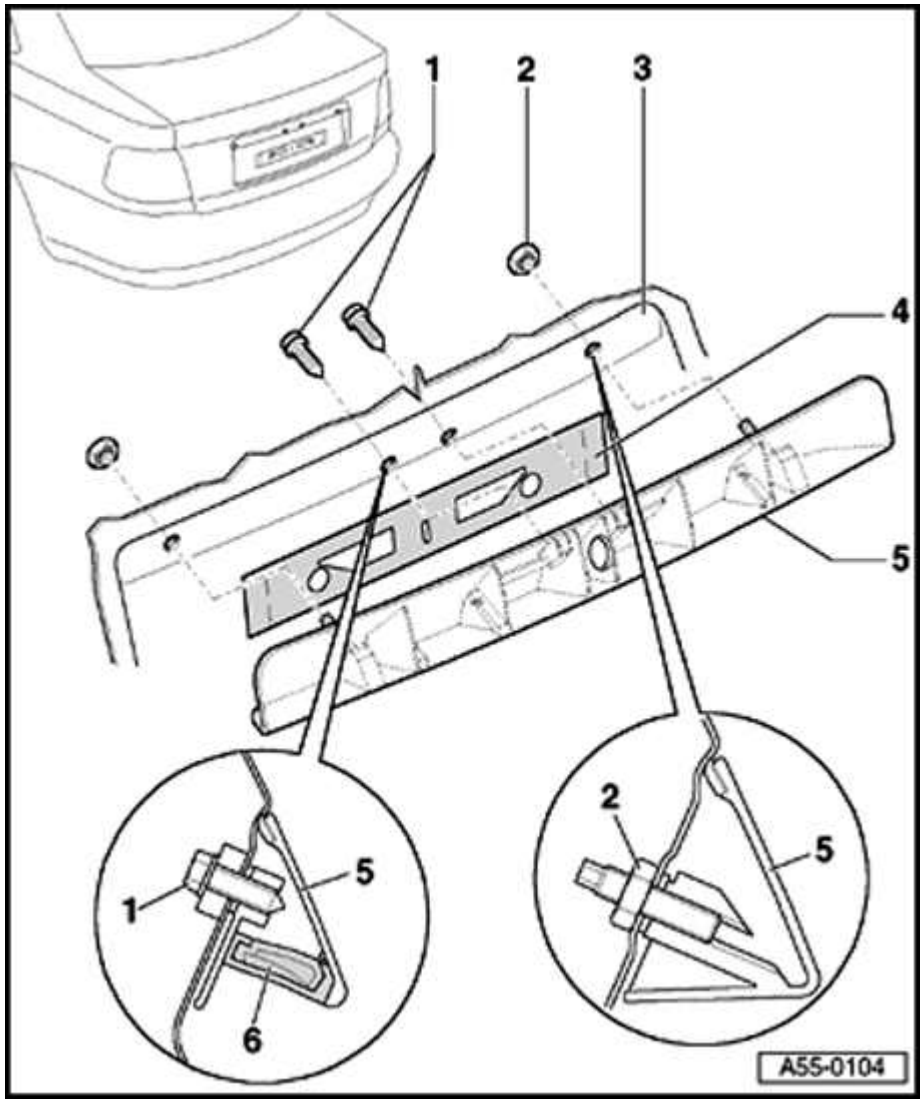


- Disengage microswitch -1- in direction of arrow and carefully push out using screwdriver.

Notes:

- *The lock cylinder cannot be adjusted for compatibility with other locks using standard tools.*
- *In order to maintain single key capability, the lock cylinder must be ordered according to the lock number.*

55-24



Rear lid (m.y. 1999 VIN 8D XA 200 001 ➢)

Grip piece, removing and installing

1 - Hex bolt

- ♦ 8 Nm

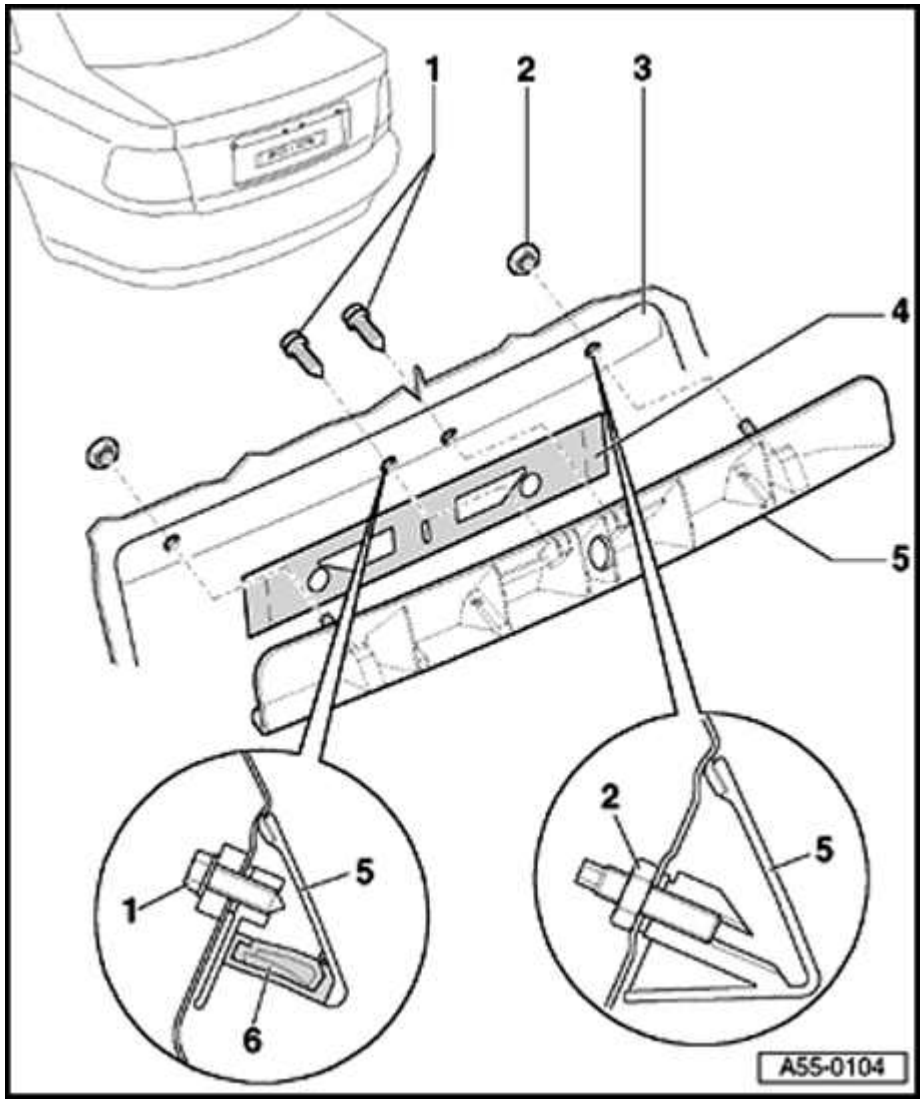
2 - Hex nut

- ♦ 8 Nm

3 - Tailgate

4 - Seal

55-25



5 - Grip piece

Removing:

- Before removal, remove tailgate trim.

⇒ *Repair Manual, Body-Interior, Repair Group 70*

- Disconnect electrical harness connector for license plate lights and switch for rear lid release.
- Remove hex bolts -1- and hex nuts -3-.

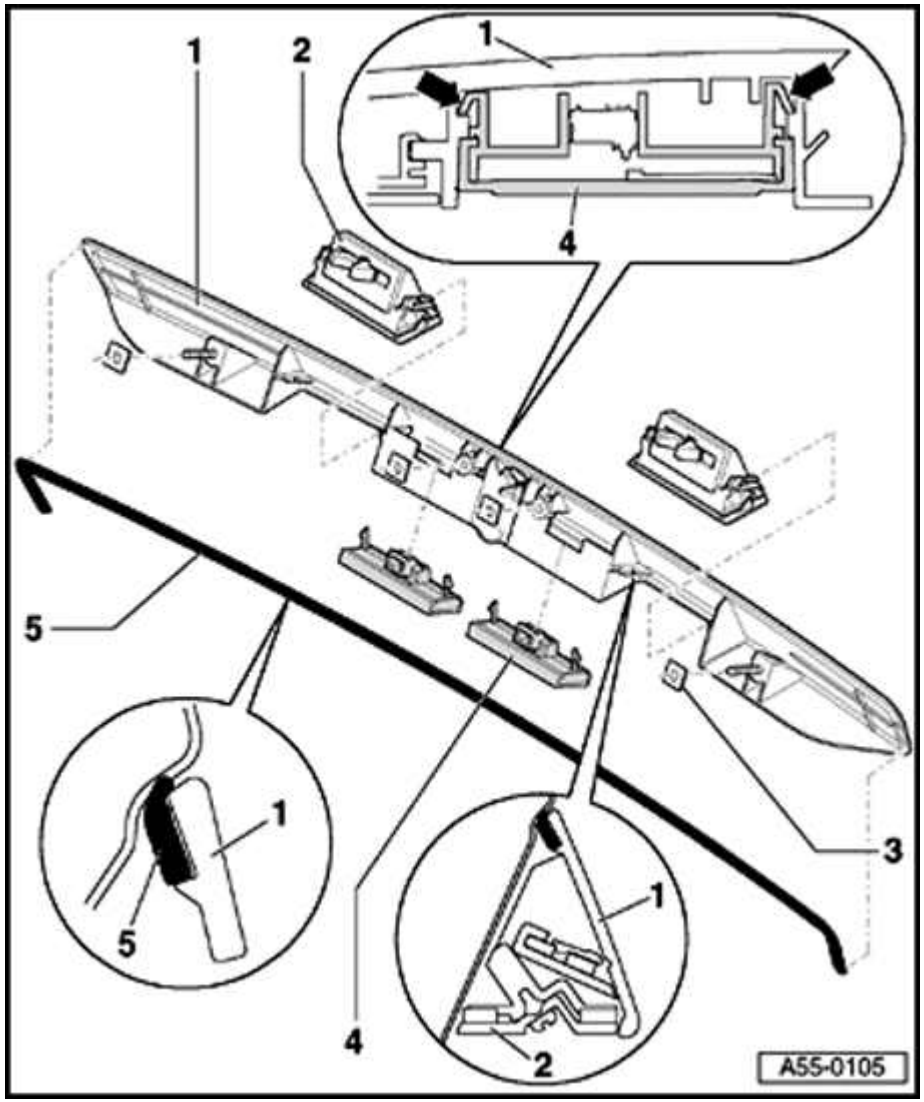
♦ Locking system is removed from rear lid via interior of luggage compartment

- Pull grip piece out of rear lid.

Installing:

- First tighten both hex nuts -2- to 8 Nm.
- Then secure locking system using hex bolts -1- and tighten bolts to 8 Nm.
- Re-connect electrical connection.

55-26



Rear lid microswitch, removing and installing

1 - Grip piece

2 - License plate lights

3 - Sealing washer

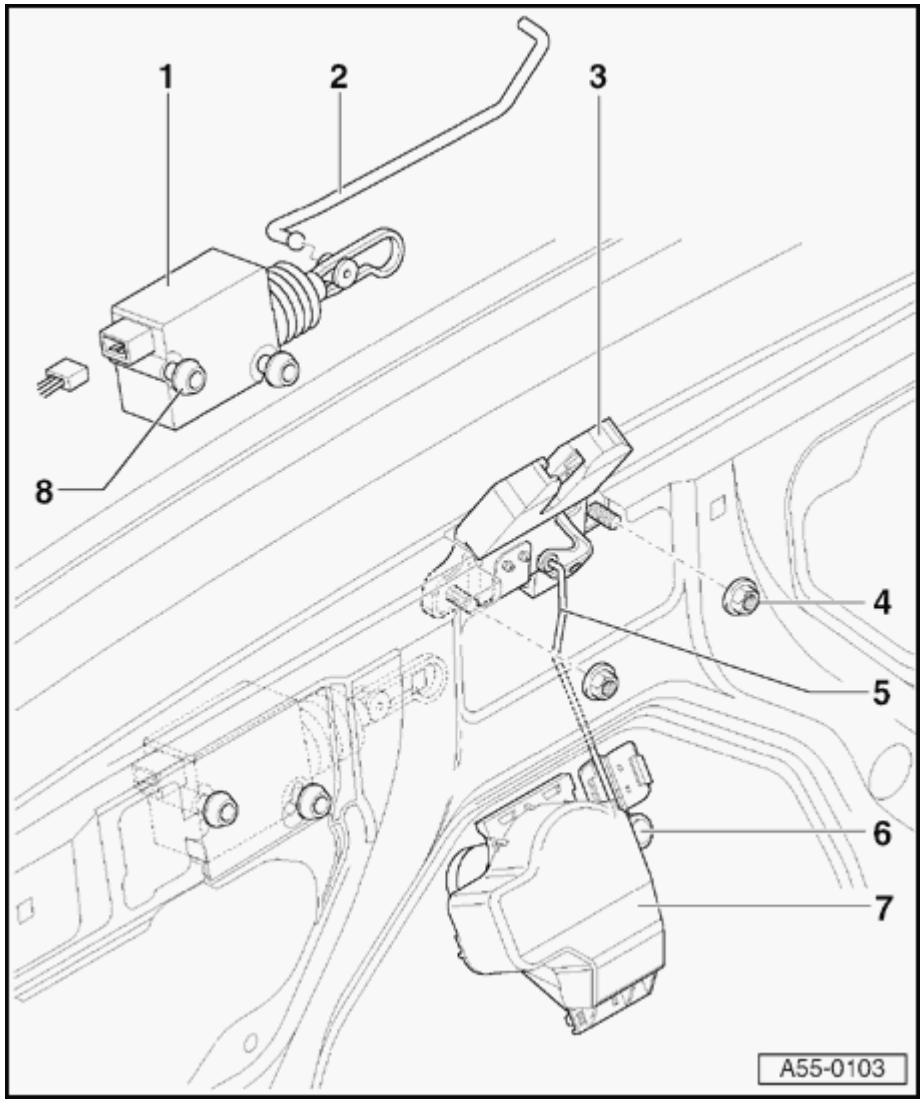
4 - Rear lid microswitch

- Disconnect electrical connectors.
- Remove grip piece.
- Release locking mechanism (arrow) and remove microswitch.

5 - Seal

- Adhesion surface must be free of dust and grease
- Self adhesive; remove protective foil before application and press seal on in center

55-27



Tailgate lock, removing and installing

1 - Rear lid lock actuator

- Before removing, first disengage operating rod -2- from rear lid lock ⇒ Fig. 6
  - Disconnect electrical harness connector.
  - Remove Torx bolts -8-.

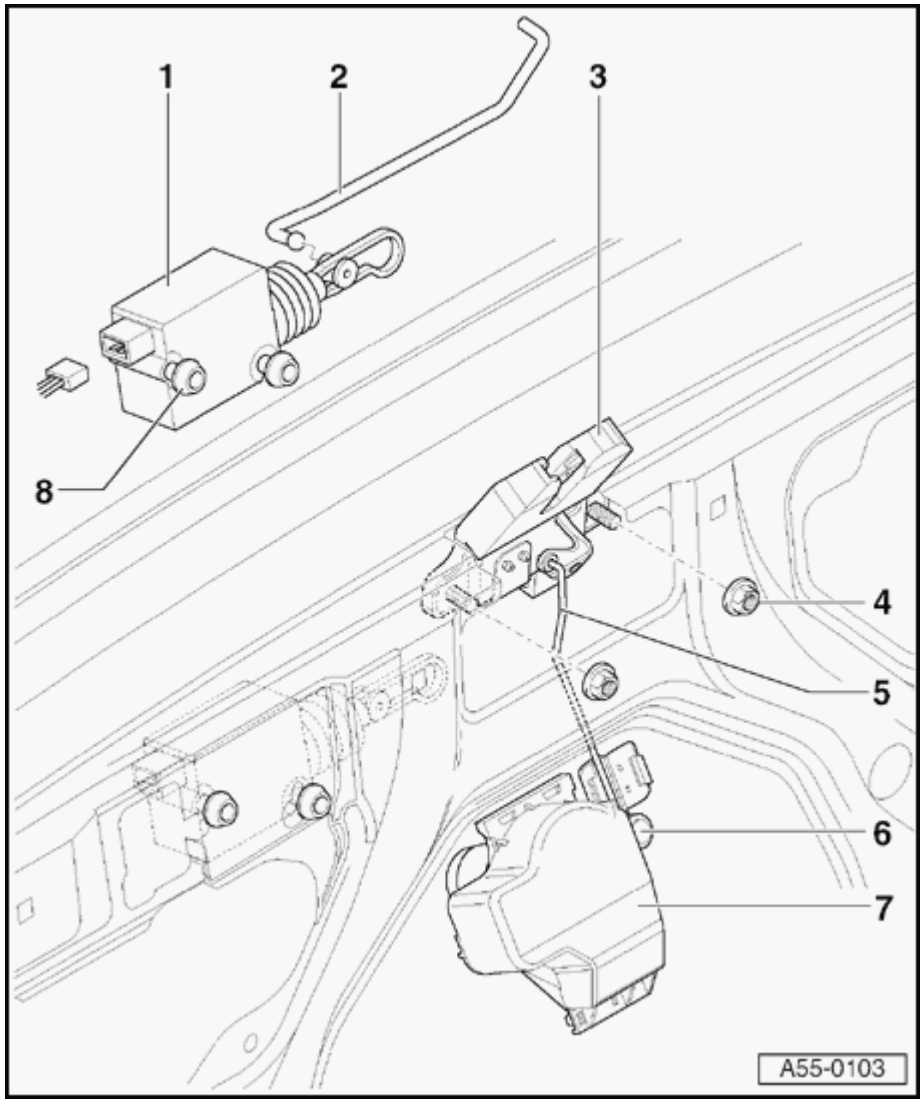
2 - Operating rod

- Disengage and engage in rear lid lock ⇒ Fig. 6

3 - Tailgate lock

Removing:

- Disengage operating rod -2- and connecting rode -5- from rear lid lock.
- Disconnect electrical harness connector.
- Remove hex nuts -4- and take out rear lid lock.



4 - Hex nut

- 8 Nm

5 - Operating rod

- Unclip and clip in rear lid lock ⇒ Fig. 6

6 - Hex nut

- 8 Nm

7 - Lock mechanism

- Removing ⇒ page 55-30

8 - Torx screw

- 2.5 Nm

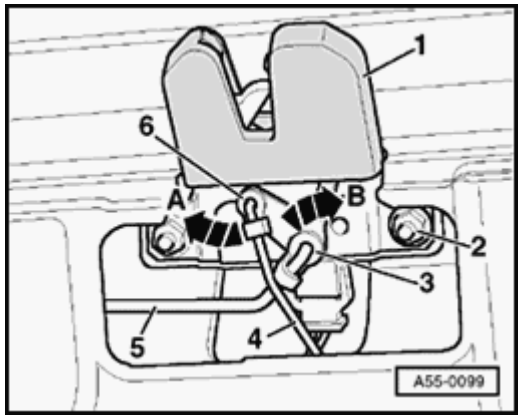


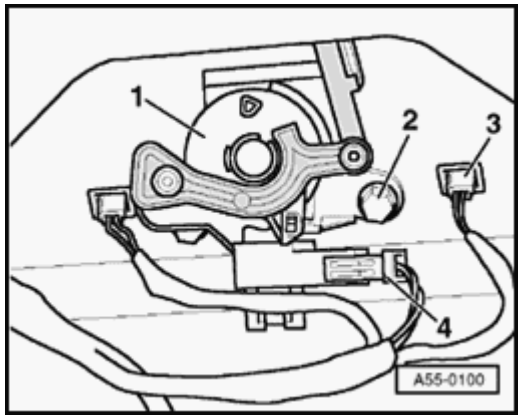
Fig. 6 Disengaging and engaging operating and connecting rods

- Swing hinge arm -6- in direction of arrow -A- and pull out connecting rod -4-.
- Swing hinge arm -3- in direction of arrow -B- and pull out connecting rod -5-.
- To remove rear lid lock -1- remove hex bolts -2-.

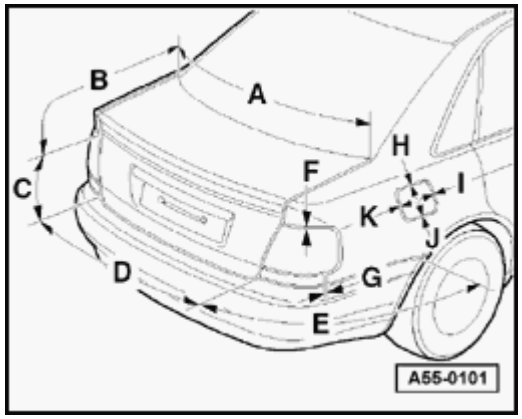
Tailgate lock system, removing and installing

- Remove tailgate trim.

- Disengage connecting rod to rear lid lock.



- Disconnect harness connectors -3- from microswitch and -4- from locking system.
- Remove hex bolts -2- and locking system -1- from rear lid.



Tailgate gap, dimensions

Letter	Actual gap dimension (mm)	Parrallelism (mm)
A	4.7 + 1.5	
B	2.9 + 1	1
C	3.3 + 1	
D	4.9 + 1	1
E	3.5 + 1	0.5
F	2.5 + 0.5	0.5
G	1.5 + 0.5	0.2
H	2.5 ± 0.1	
I	3.3 ± 0.1	
J	3.3 ± 0.2	
K	3.0 ± 0.4	

55-32

Tailgate (Avant), (➢ m.y. 1999 VIN 8D XA 200 000)

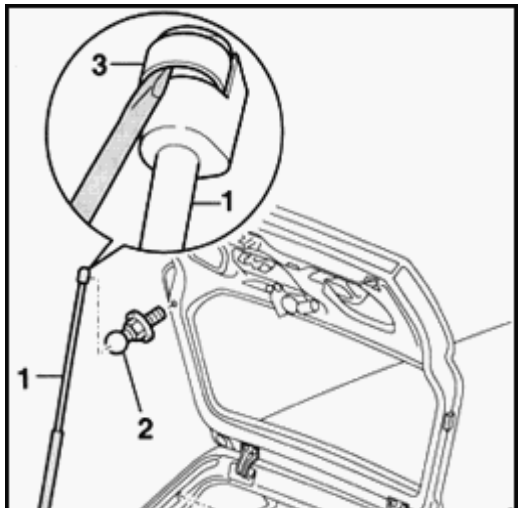
Tailgate, removing and installing

- Remove tailgate trim.

⇒ *Repair Manual, Body-Interior, Repair Group 70*

- Disconnect or remove harness connectors and hoses (i.e. for central locking and rear window washer system).

- Prop up and secure tailgate in open position.



- Using screwdriver, lift retaining spring -3- as shown and remove gas-filled strut -1- from upper ball stud -2-.

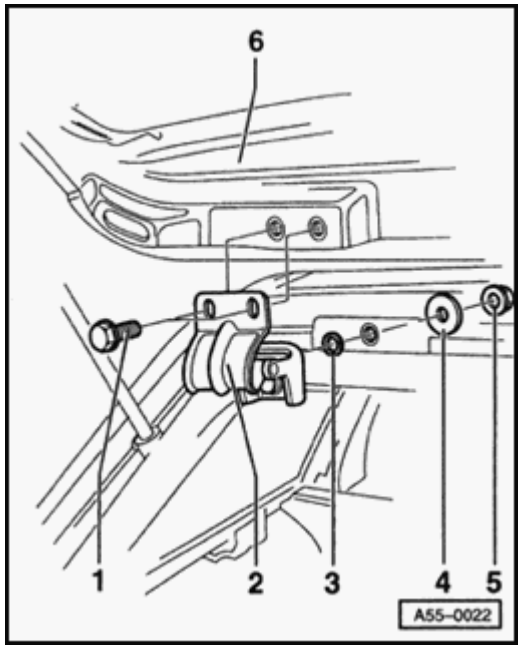
Note:

Following complete removal of gas-filled strut, check for correct positioning during installation.

Sound insulation components must be installed on the body side.

- To install, press gas-filled strut onto ball studs so that it engages in position.

Ball stud tightening torque: 15 Nm -1 Nm



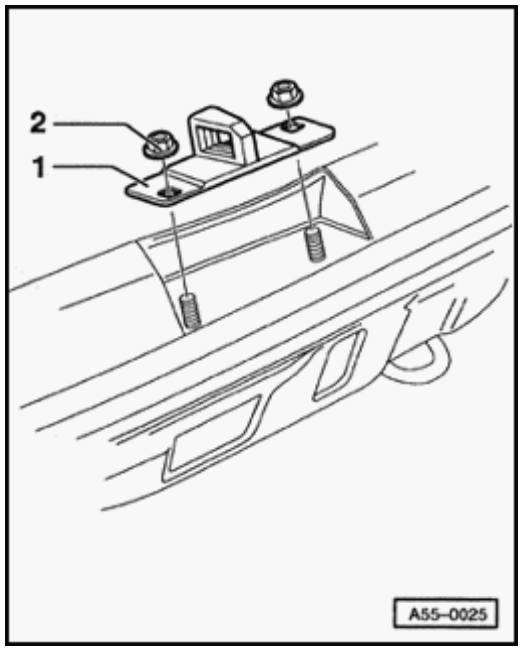
- Remove hex bolt -1- (2x) from tailgate -6-.

  Tightening torque: 21 Nm (15 ft lb)

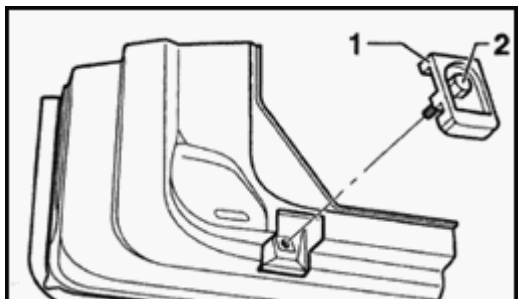
Tailgate, adjusting

Note:

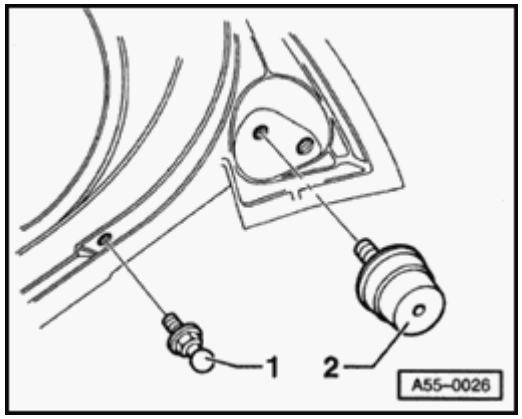
Before installing a new tailgate the gas-filled struts must be installed.



- Loosely attach striker -1- with nuts -2-.



- Loosely attach lower stop -1- (on trim of rear hatch) using hex bolt -2-.



- Screw upper stop -2- in fully.
- Close rear hatch to appropriate position (flush).

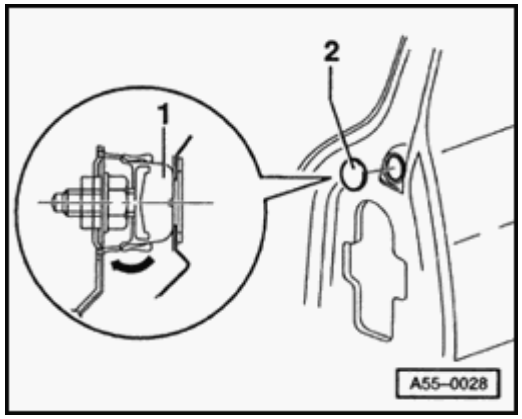
  Rear lock and striker must engage.
- Open rear hatch and tighten mounting nut for striker to 8 Nm (71 in. lb).
- Install clay onto upper stop.
- Close and open tailgate.
- Determine thickness of clay and adjust stop accordingly.
- Unscrew stop another 1.5 to 2 rotations.

Note:

Two (2) rotations represent a preload of 2.5 mm and a vertical shift of 0.8 mm at point -C- ⇒ page 55-41 .

- Check shutting comfort and gap dimensions.

55-36

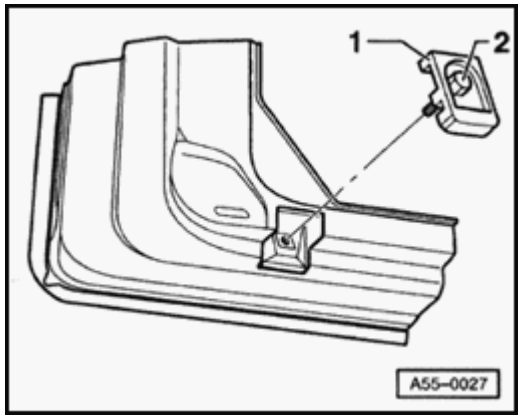


- Screw stop -1- into lock nut.

  Tightening torque: 21 Nm (15 ft lb)

- Push cover on stop up toward tailgate surface (arrow).

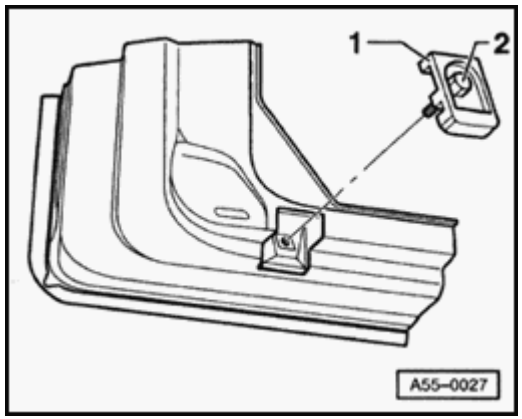
2 - Protective cap



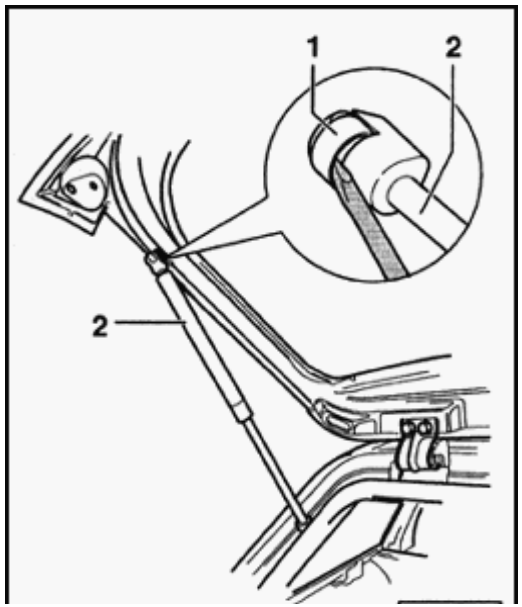
- Loosen hex bolt -2- and pull lower stop -1- out slightly.
- Tighten hex bolt -2- slightly and close rear hatch.
- Using sensor gauge, set stop -1- from inside at 1 mm clearance to tailgate trim.

CAUTION!

Stop buffers must not make contact with rear lid trim when rear lid is closed.

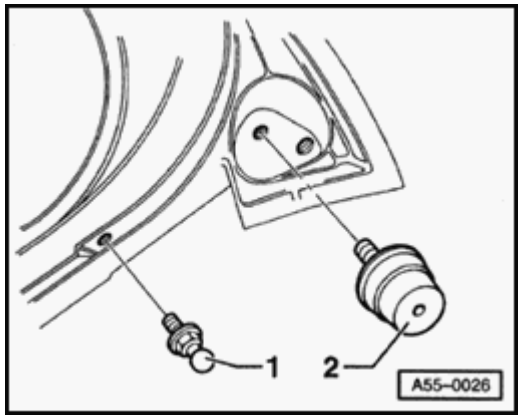


- Open hatch and tighten hex bolt -2- for stop to 8 Nm (71 in. lb).
- Check gap dimensions ⇒ page 55-41 .



Removing and installing gas-filled strut

- Lift retaining spring on gas-filled strut -1- and remove strut from ball stud.
- To install, press gas-filled strut onto ball stud.

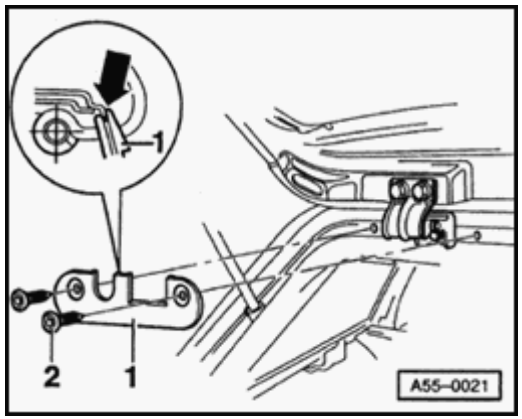


Removing and installing ball stud

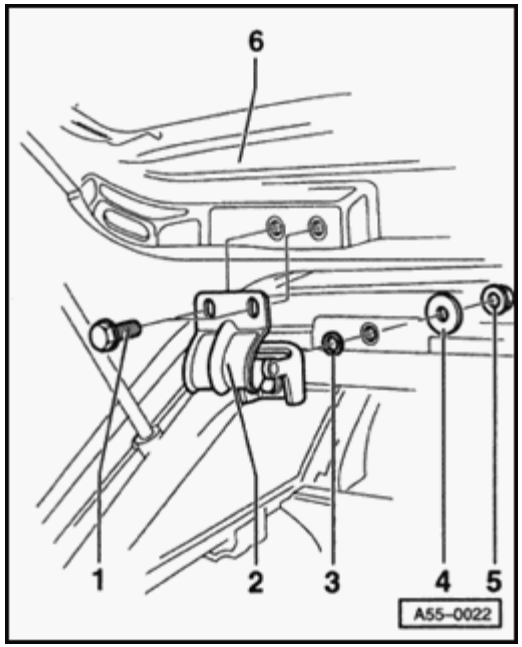
- Unscrew ball stud -1- and remove with seal.
- For installation, tighten to 14 Nm (10 ft lb).

55-39

Rear lid hinge, removing and installing



- Remove screws -2- and cover -1- for hinge.
- To install, first center cover -1- in notches (arrow) in roof flange and then tighten screws -2- to 2.5 Nm (22 in. lb).



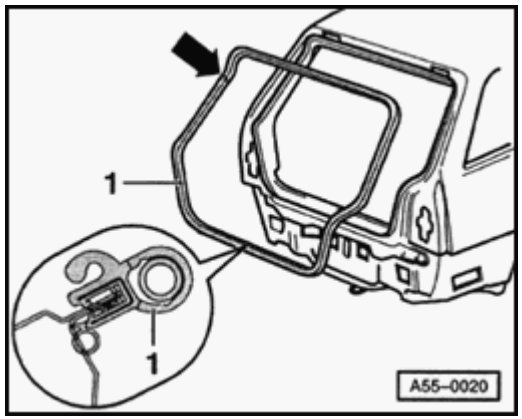
- Remove rear roof molding trim.

⇒ *Repair Manual, Body-Interior, Repair Group 70*

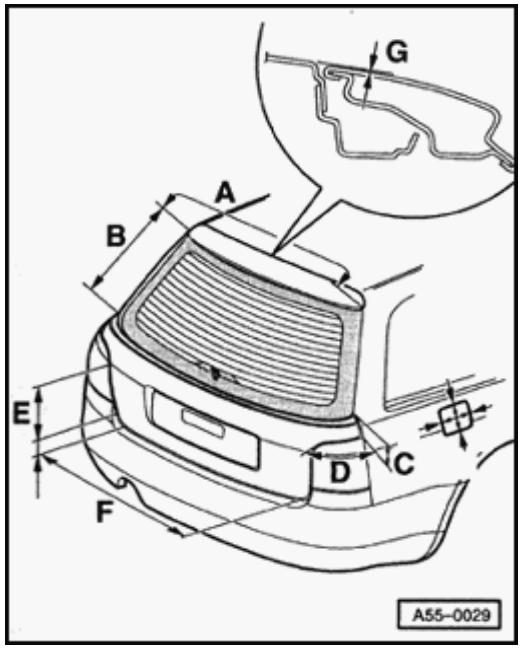
- Remove hex bolt -5-.
- Remove hex bolt -1-.
- Replace seal -3- during installation.
- Tighten hex bolt and bolt to 21 Nm (15 ft lb).

55-40

Tailgate seal, removing and installing



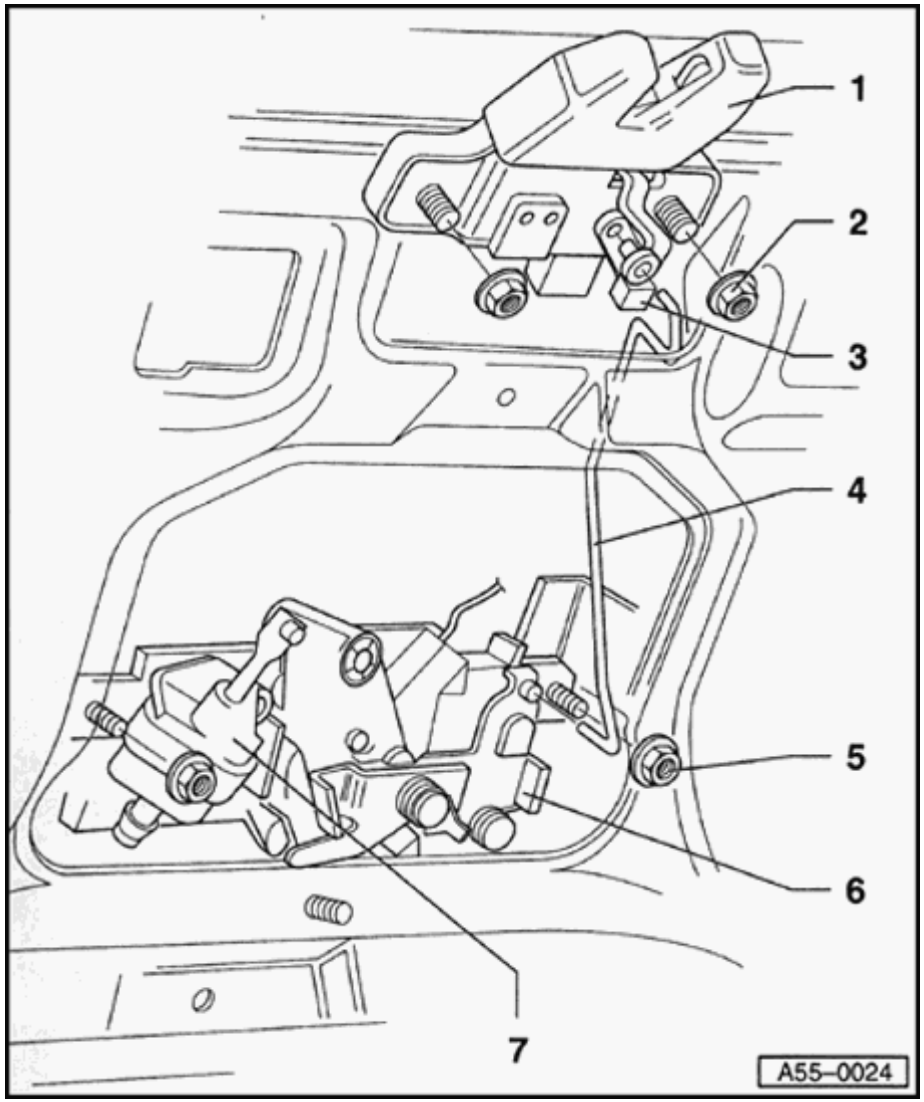
- Open tailgate and remove seal.
- When installing, vulcanized butt joint (arrows) must be placed on body side at height of ball stud.
- Press seal -1- onto body as shown.



Gap dimensions, tailgate

Letter	Actual gap dimension (mm)	Parrallelism (mm)
-A-	4.0 +1	0.5
-B-	5.0 +1	1
-C-	4.0 +1	0.5
-D-	3.4 +1	0.5
-E-	3.4 +1	0.5
-F-	5.0+1	
-G-	1.0	
-H-	2.5 ± 0.1	
-I-	3.3 ± 0.1	
-J-	3.3 ± 0.2	
-K-	3.0 ± 0.4	

55-42



Tailgate lock, removing and installing

1 - Tailgate lock

- To remove, swing out hinge arm -3- from operating rod -4- and unhook operating rod from tailgate lock.
- Remove hex bolts -2- and tailgate lock.

2 - Hex nut

- 8 Nm (71 in. lb)

3 - Hinge arm

- Must be swung over operating rod -4-

4 - Operating rod

- To remove, first disengage from lock system -6-.

5 - Hex nut

- 8 Nm (71 in. lb)

6 - Lock system

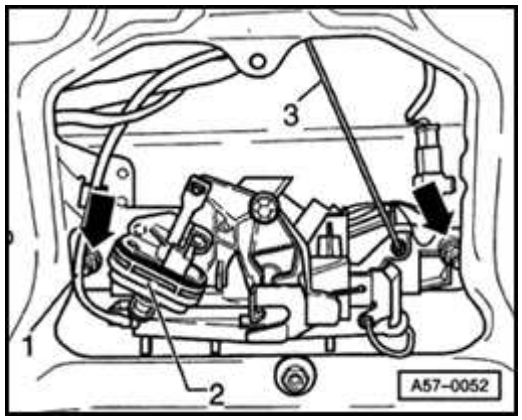
- Removing ⇒ page 55-43

7 - Tailgate lock actuator

- Removing ⇒ page 55-44

55-43

Tailgate lock system, removing and installing



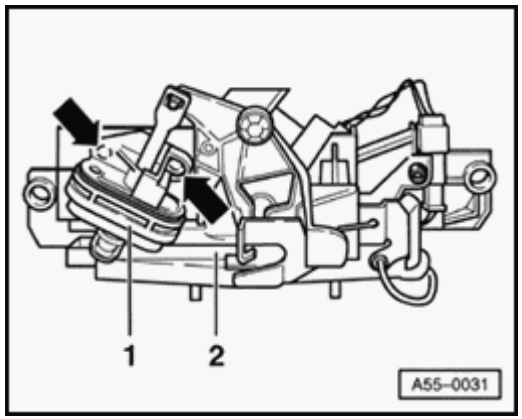
- Remove tailgate trim.

⇒ *Repair Manual, Body-Interior, Repair Group 70*

- Disengage lock system at plug for vacuum line -1- and remove from lock actuator -2-.
- Unclip operating rod -3-.
- Disengage locating hooks on release handle and remove ⇒ page 55-47 .
- Remove hex bolts (arrow) and remove lock system from tailgate.

  Hex bolt tightening torque: 8 Nm (71 in. lb)

Lock actuator, removing and installing

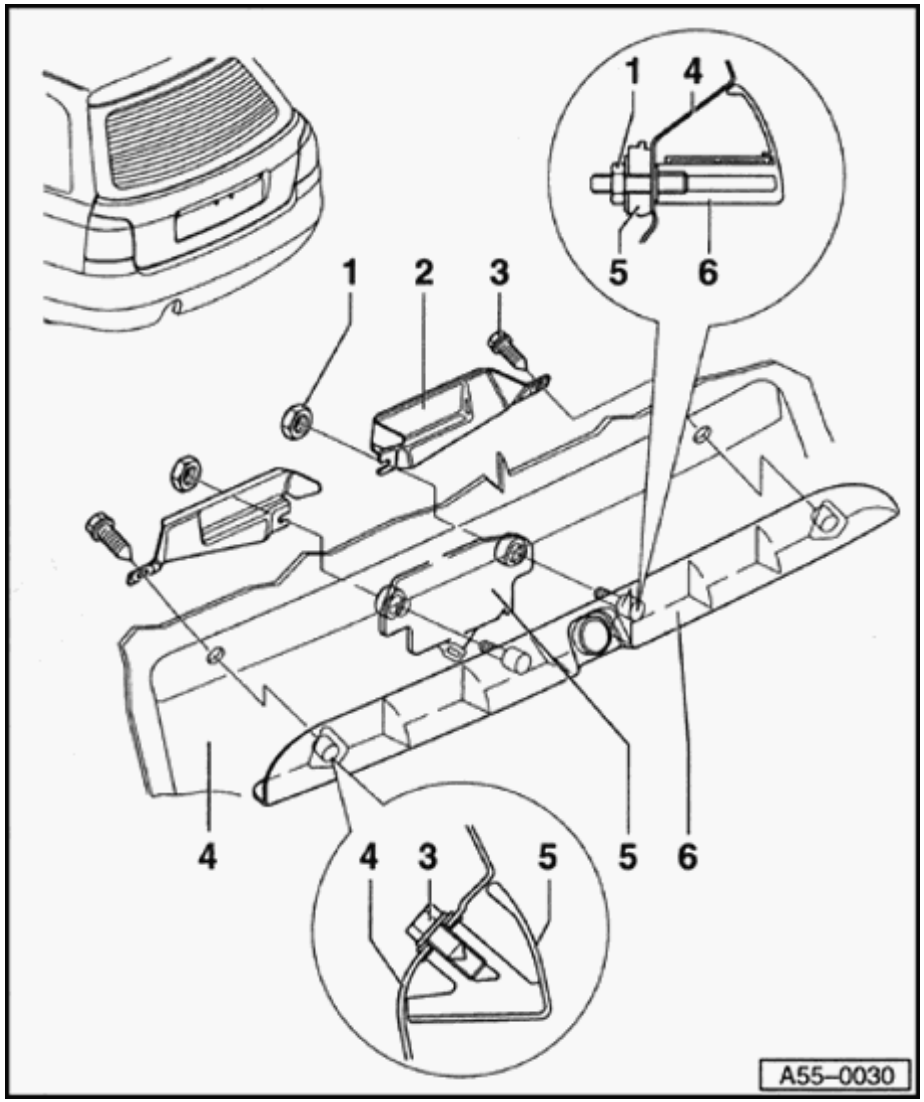


- Push out clamping pins (arrow) and remove lock actuator -1- from lock -2-.
- Clamping pins must be snapped into expanding clips again during installation.
- Pry out using screwdriver if necessary.

Note:

Illustration shows component after removal.

55-45



Grip piece, removing and installing

1 - Hex nut

- ♦ 8 Nm (71 in. lb)

2 - Bracket

- To remove, remove hex bolts -1- and bolts -3-.

Note:

Part was discontinued shortly following series launch.

3 - Hex bolt

- ♦ 8 Nm (71 in. lb)

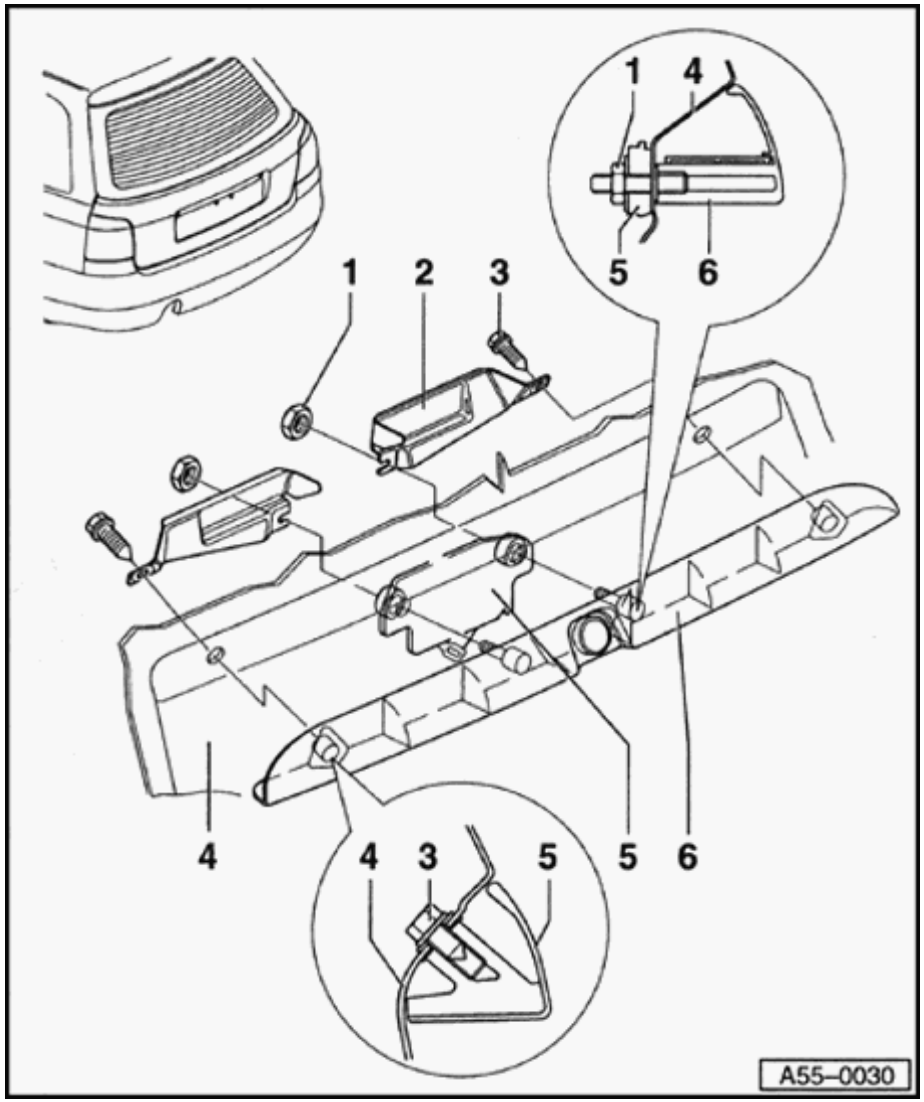
4 - Tailgate

- ♦ Removing and installing ⇒ page 55-32

5 - Lock mechanism

- To remove, remove hex bolts -1-.
- Disengage locating hooks on release handle (⇒ Fig. 1) and remove.
- Remove lock mechanism.

55-46



6 - Grip piece

- Before removal, remove tailgate trim.

⇒ *Repair Manual, Body-Interior, Repair Group 70*

- To remove, remove hex nuts -1- and bolts -3-.
- Pull grip piece slightly out of tailgate and disconnect harness connectors for license plate lights.
- To install, insert grip piece into tailgate holes.
- Thread bracket -2- at lock mechanism and attach to grip piece using external securing screws.

55-47

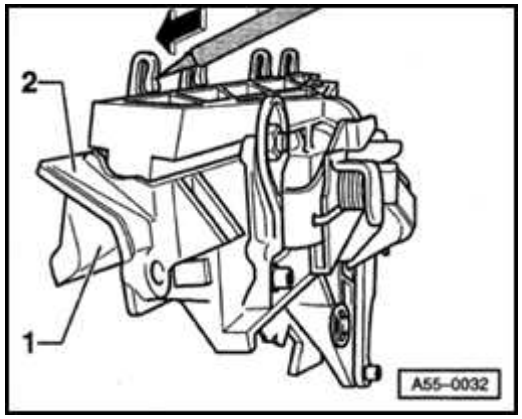


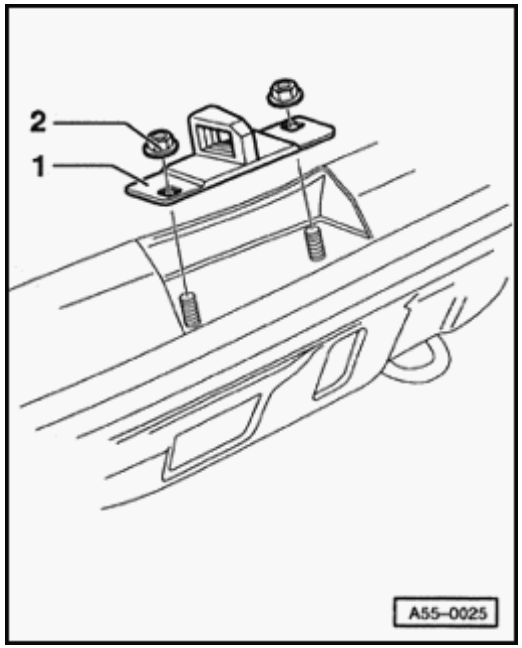
Fig. 1 Removing and installing lock unit

- Using screwdriver, press in and disengage securing hooks (arrow) on inside of tailgate.
- Pull release handle -1- down and out of lock system -2- under grip piece.

55-48

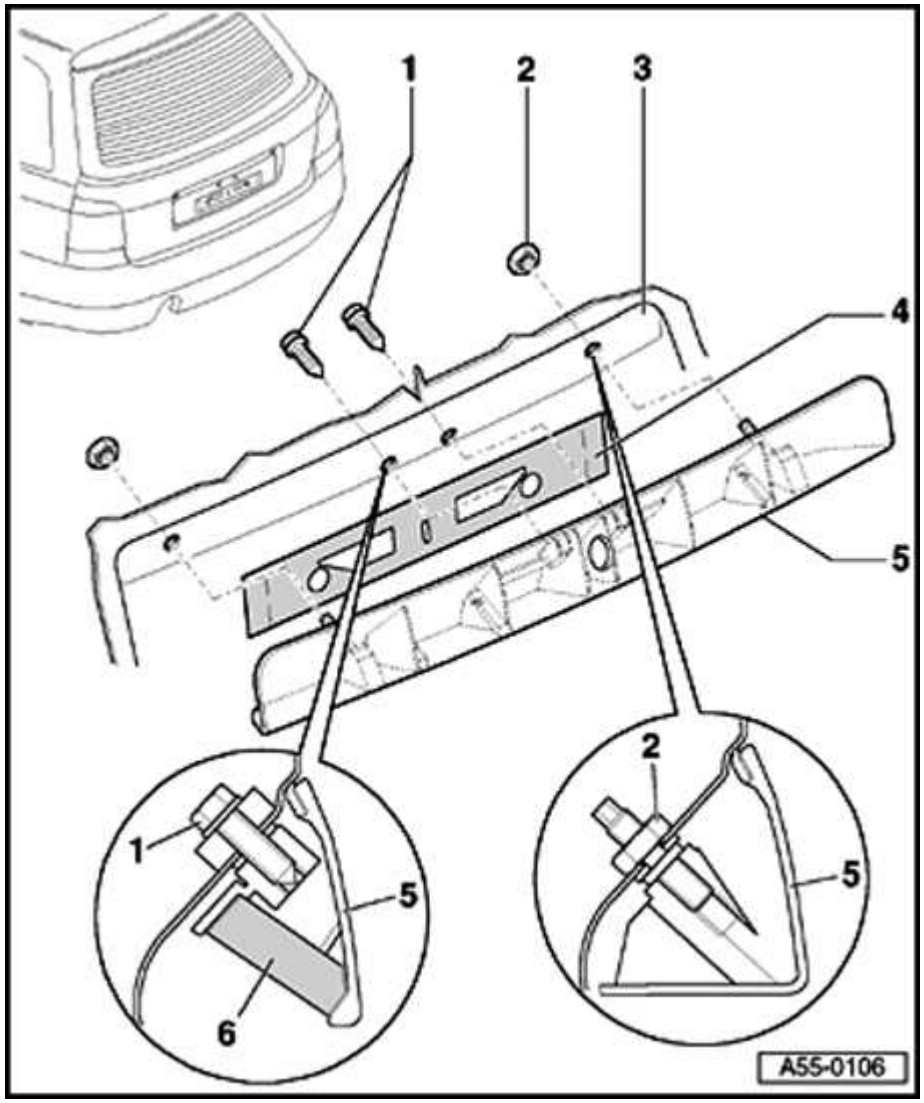
Tailgate striker, removing and installing

- Before removing striker, mark its position using soft pencil.



- To remove, unscrew hex nuts -2- and remove striker -1-.
- Position new striker according to markings and tighten hex nuts finger-tight.
- Close tailgate until lock engages and tailgate is in flush position.
- Open tailgate and tighten hex nuts to 8 Nm (71 in. lb).
- Check for flushness and shutting comfort; adjust if necessary.

55-49



Tailgate (Avant) (m.y. 1999 VIN 8D XA 200 001 ➢)

Grip piece, removing and installing

1 - Hex bolt

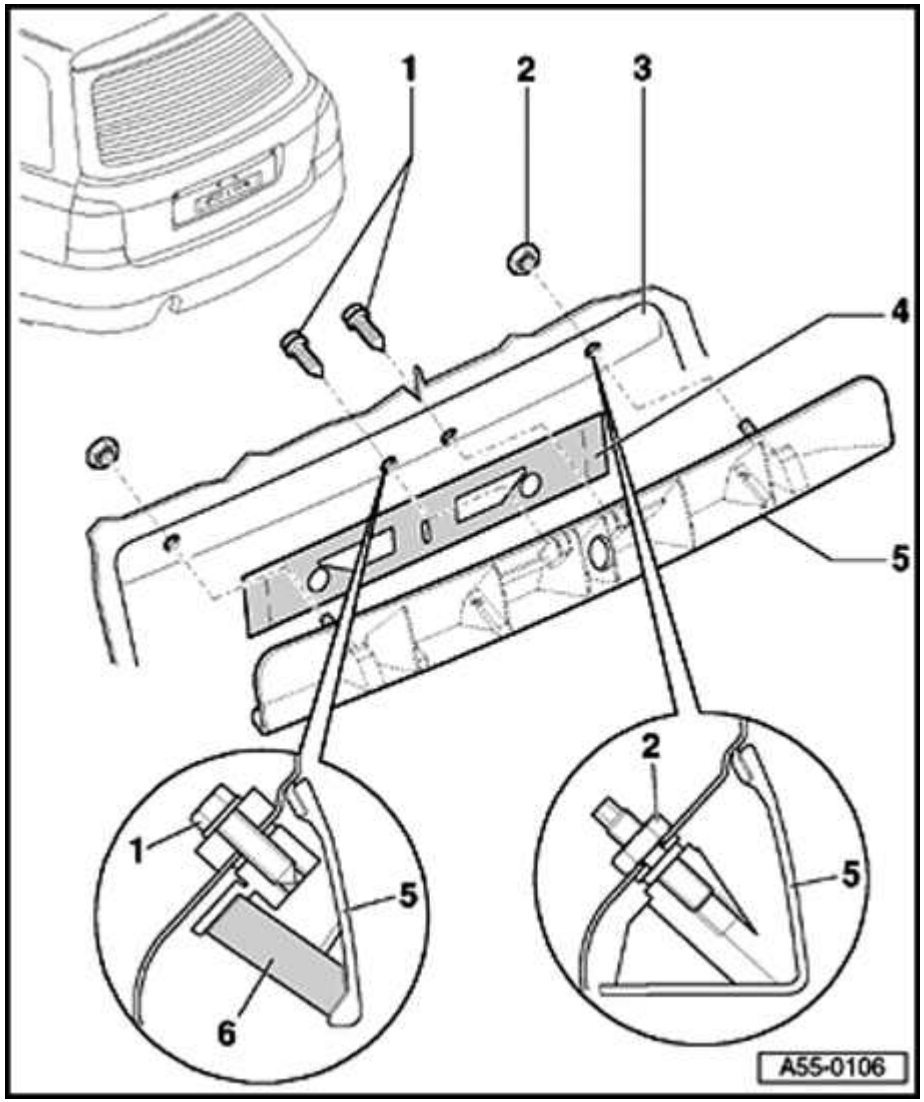
- 8 Nm

2 - Hex nut

- 8 Nm

3 - Tailgate

4 - Seal



5 - Grip piece

Removing:

- Before removing, remove tailgate trim.

⇒ *Repair Manual, Body-Interior, Repair Group 70*

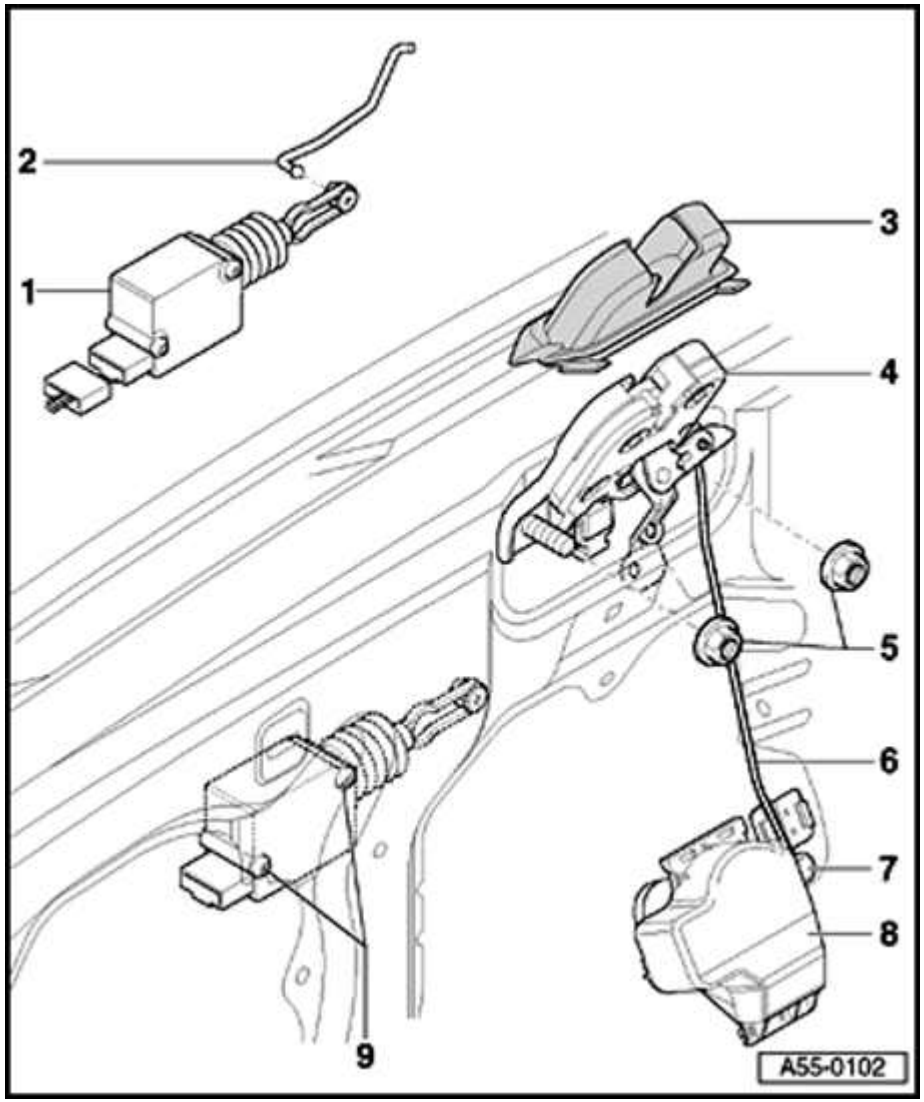
- Disconnect electrical harness connector for license plate lights and switch for rear lid release.
- Remove hex bolts -1- and hex nuts -3-.
- Locking system is removed via interior of luggage compartment.
- Pull grip piece out of rear lid.

Installing:

- Install grip piece on rear lid via rear lid bore holes.
- First tighten both hex nuts -2- to 8 Nm.
- Then secure locking system using hex bolts -1- and tighten bolts to 8 Nm.

6 - Microswitch for rear lid release

♦ Removing ⇒ page 55-26



Tailgate lock, removing and installing

1 - Lock actuator for rear lid

- Before removing, first disengage operating rod -2- from rear lid lock ⇒ Fig. 1
- Remove Torx bolts -9- and take out actuator

2 - Operating rod

- Unclip and clip in rear lid lock ⇒ Fig. 1

3 - Cap

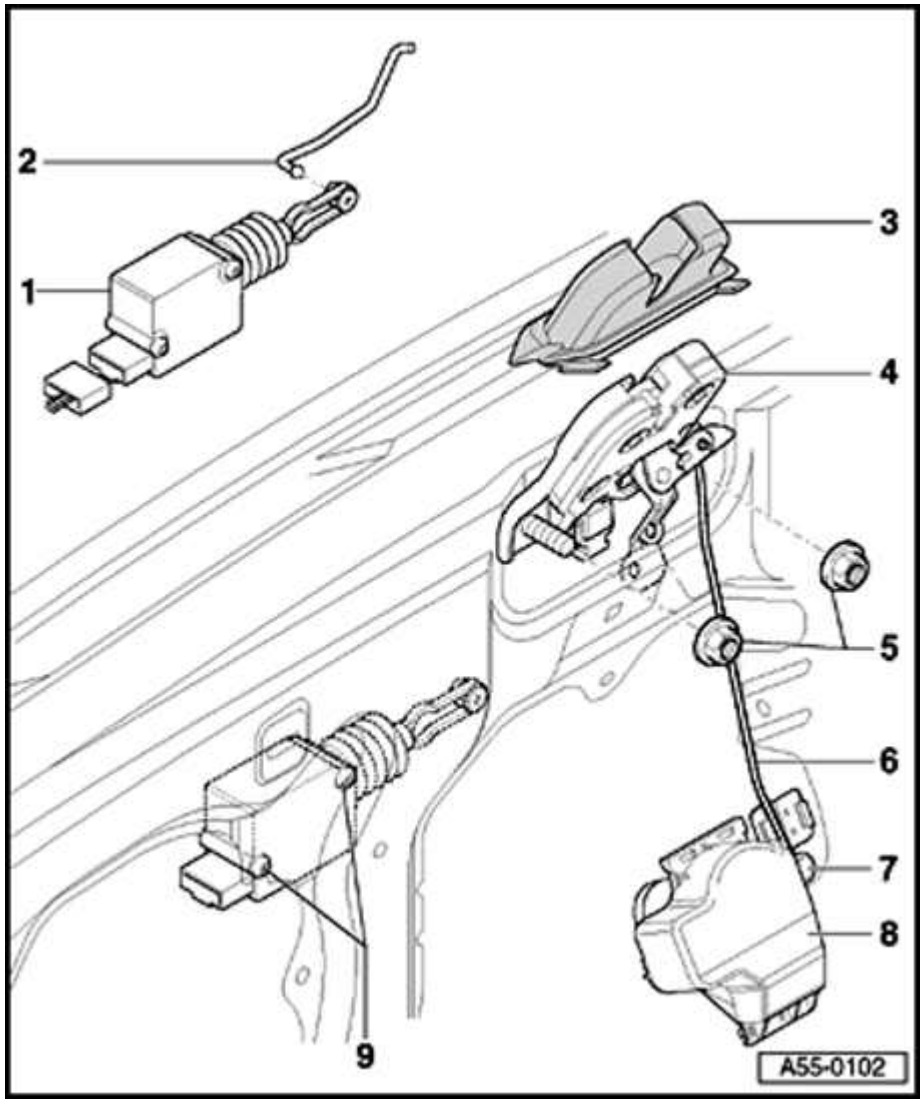
- To remove, unclip from rear lid lock and remove ⇒ page 55-54 .

4 - Tailgate lock

Removing:

- Disengage operating rod -2- and connecting rod -6- from rear lid lock.
- Remove hex nuts -4- and take out rear lid lock.

- Locking system is removed from rear lid via interior of luggage compartment.
  - Pull grip piece out of rear lid.



Installing:

- First tighten both hex nuts -2- to 8 Nm.
- Then secure locking system using hex bolts -1- and tighten bolts to 8 Nm.

5 - Hex nut

- 8 Nm

6 - Operating rod

- Unclip and clip in rear lid lock ⇒ Fig. 1

7 - Hex nut

- 8 Nm

8 - Lock mechanism

- Removing ⇒ page 55-55

9 - Torx screw

- 2.5 Nm

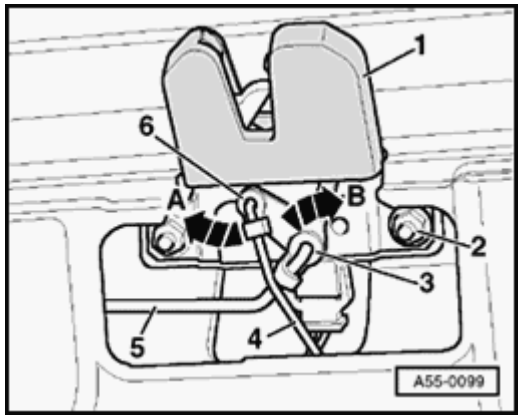


Fig. 1 Disengaging and engaging operating and connecting rods

- Swing hinge arm -6- in direction of arrow -A- and pull out connecting rod -4-.
- Swing hinge arm -3- in direction of arrow -B- and pull out connecting rod -5-.
- To remove rear lid lock -1- remove hex nuts -2-.

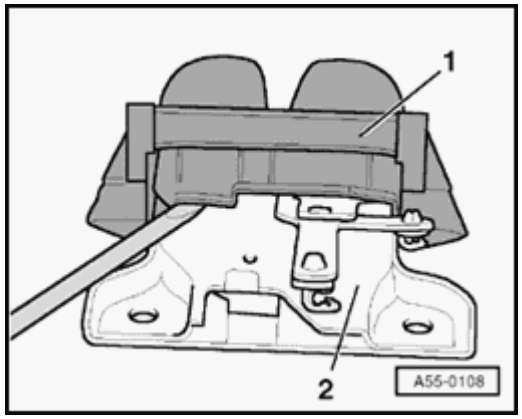


Fig. 2 Removing cover for rear lid lock

Note:

Part is shown in removed condition for the sake of illustration.

- Tailgate trim must be removed before removing cover.
- To remove, disengage locking mechanisms (arrows) using a screwdriver and pull off cover.

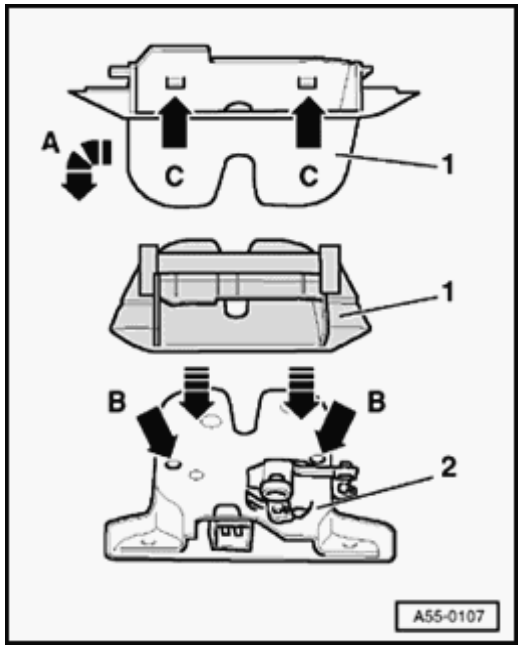


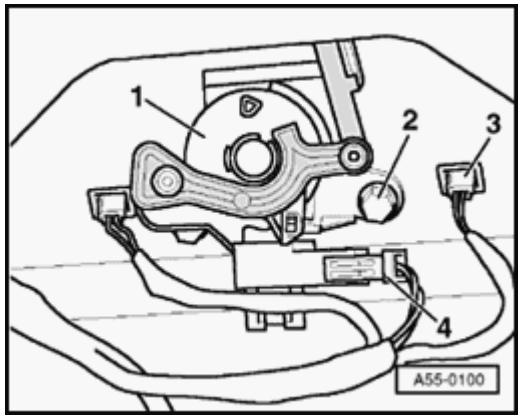
Fig. 3 Installing cover for rear lid lock

- Tilt cover 90° in direction of arrow -A-.
- Slide cover -1- onto rear lid lick -2- until retaining tabs (arrows -C-) engage completely in bore holes (arrows -B-) on both sides.
- Perform a function test for proper closure of rear lid.

Tailgate lock system, removing and installing

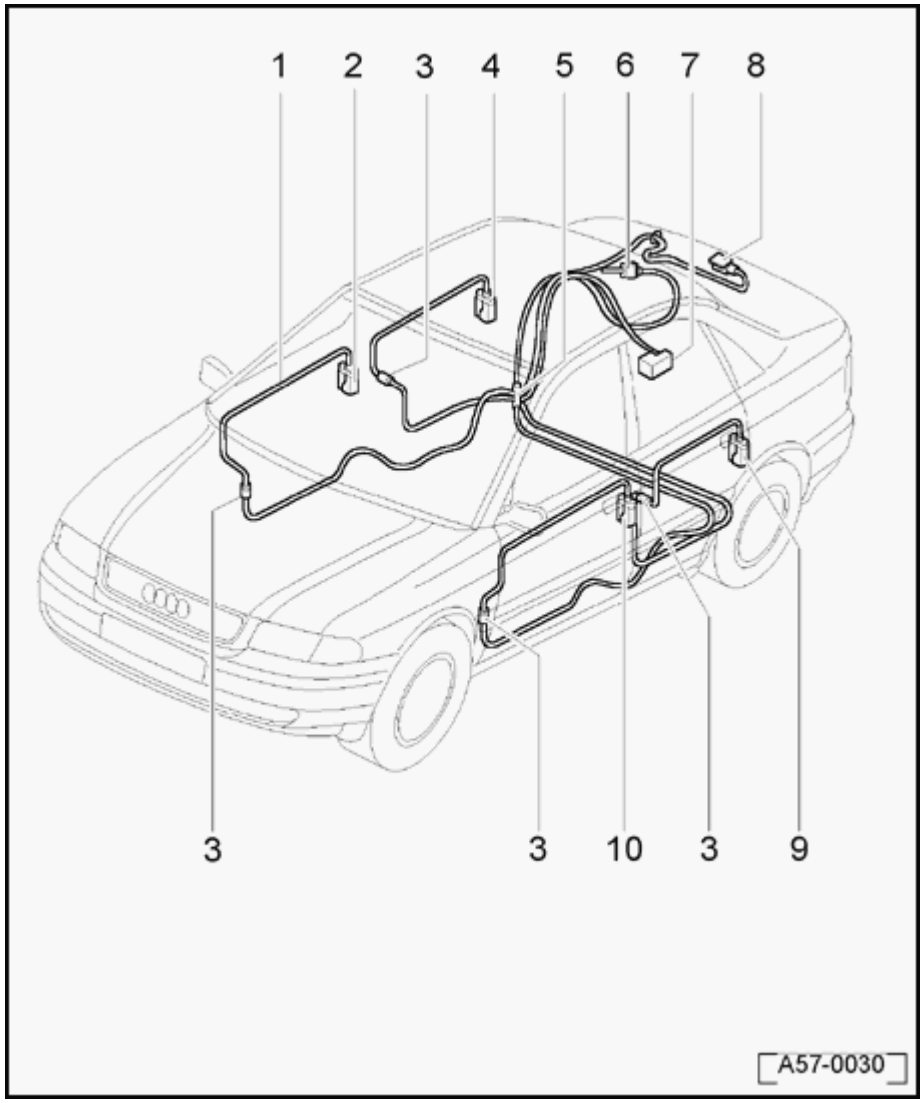
- Remove tailgate trim.

- Disengage connecting rod to rear lid lock.



- Disconnect harness connectors -3- from microswitch and -4- from locking system.
- Remove hex bolts -2- and locking system -1- from rear lid.

57-39



Central locking system

Assembly overview

1 - Vacuum line

2 - Right-front door lock actuator

- Removing and installing ⇒ page 57-12

3 - Vacuum line connectors

- Disengage harness connectors ⇒ page 57-42
- Additional vacuum line connectors are located at bottom of A-pillar and in boot at B-pillar

4 - Right-rear door lock actuator

- Removing and installing ⇒ page 58-14

5 - Fuel filler flap lock actuator

- Removing and installing ⇒ page 57-46

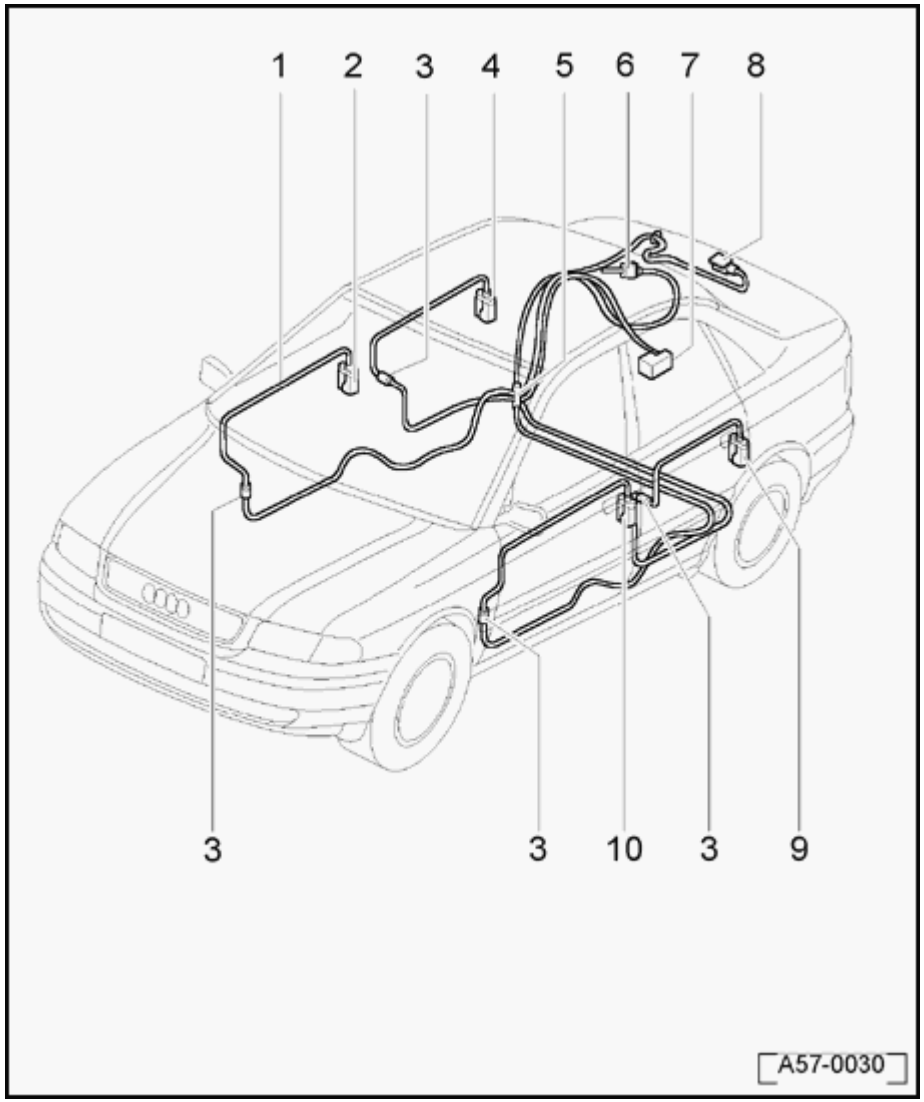
6 - Central locking system pump

- Removing and installing ⇒ page 57-49

7 - Distribution box

- Connected with all other wires excluding wire for rear lid

57-40



8 - Left-front door lock actuator

- Removing and installing same as for right door

9 - Rear lid lock actuator

- Removing and installing ⇒ page 57-47

10 - Left-rear door lock actuator

- Removing and installing same as for right door

57-41

Repairing central locking system

For additional information ⇒ Electrical Wiring Diagrams, Troubleshooting & Component Locations binder.

Notes:

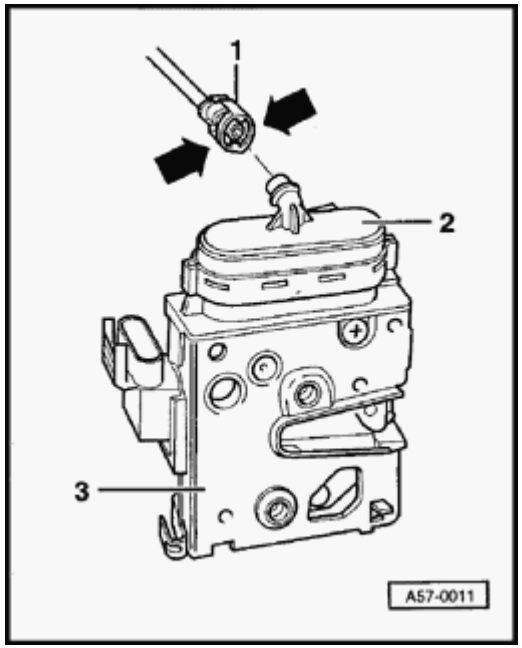
- *After the car has been parked for a lengthy time and/or after replacing the central locking system pump, the central locking system will not function properly until prompted repeatedly.*
- *When the system is operating correctly, all locks will close within 2 seconds.*
- *If the pump operates for longer than 5 seconds, there is a leak in the system.*
- *When there is a leak in the system, the pump must not run for more than 30 seconds. The pump's control unit must shut it off at this point.*
- *All the lock actuators are equipped with special vacuum line connectors that must lock when plugged in.*

57-42

Vacuum line connectors, disengaging

Note:

Do not simply pull on the lock actuators to disconnect; the locking mechanism installed on the harness connector must first be disengaged.



- To disengage lock, squeeze harness connector on locking mechanism at arrows.
- Disconnect harness connector.

57-43

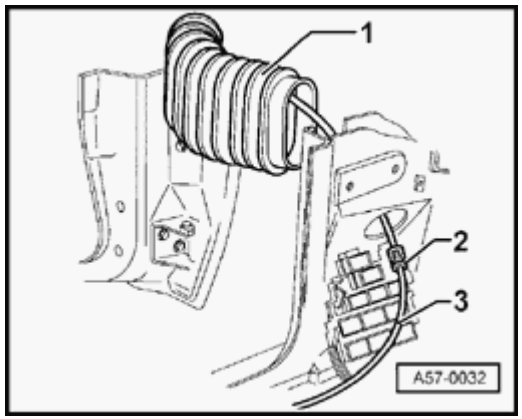
Damaged vacuum line, repairing

- Remove damaged area using knife.

- Cut connecting line e.g. ET-Nr 533 862 225 to proper length and push onto vacuum line.

57-44

A-pillar vacuum line connector



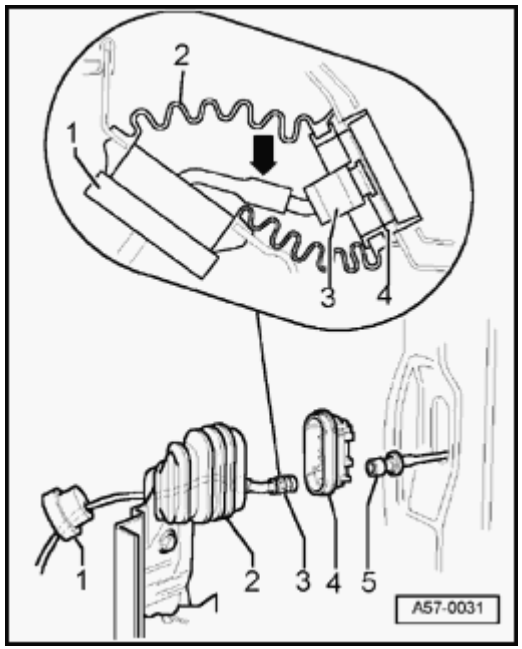
- After removing lower A-pillar cover, vacuum line connector -2- becomes accessible at bottom of A-pillar.

1 - Boot

3 - Line to distribution box

57-45

B-pillar vacuum line connector



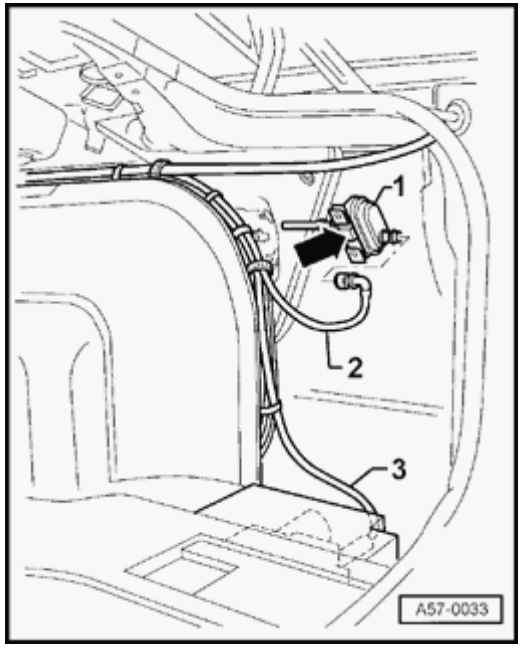
- Assemble seal -1- with cable slot at bottom.
- After removing boot -2-, vacuum line connector -3- can be removed by disengaging locking mechanism from line -5-.

Note:

The 45° plug (arrow) must point toward front of vehicle.

57-46

Lock actuator for fuel filling flap, removing and installing

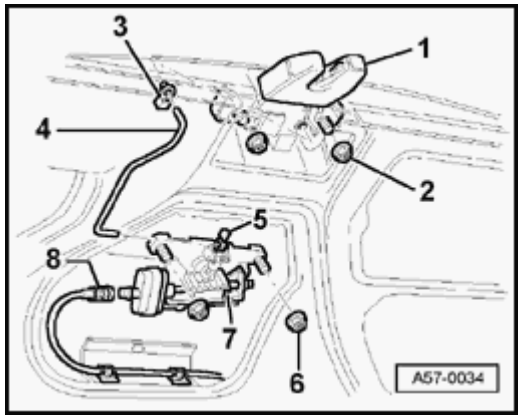


- Disengage locking mechanism from angled plug and detach vacuum line -2-.
- To remove, press in locking lug arrow and pull lock actuator -1- rearward and out.

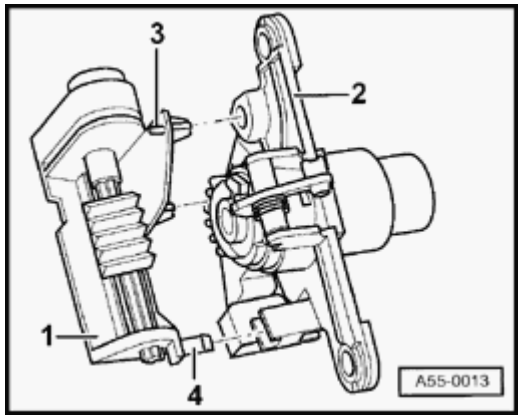
3 - Vacuum line to the pump for central locking system

Rear lid lock actuator, removing and installing

Removing



- Separate harness connector and detach vacuum line.
- Disengage operating rod -4- from clip -3-.
- Remove hex nuts -6- and remove lock actuator -7- from rear lid lock.

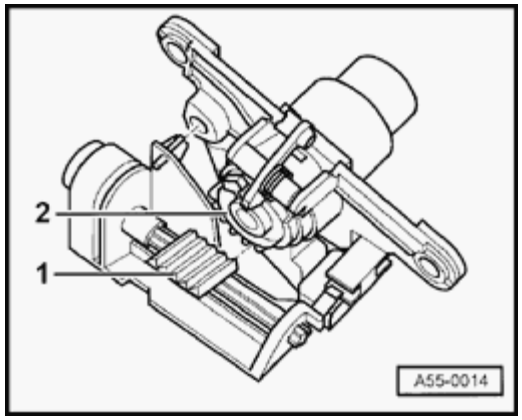


- Push out retaining pin -3- (2x) remove expanding clip.
- Push clip -4- back and disconnect.
- Remove lock actuator -1- from rear lid lock.

57-48

Installing

- Set lock cylinders in "open" position.

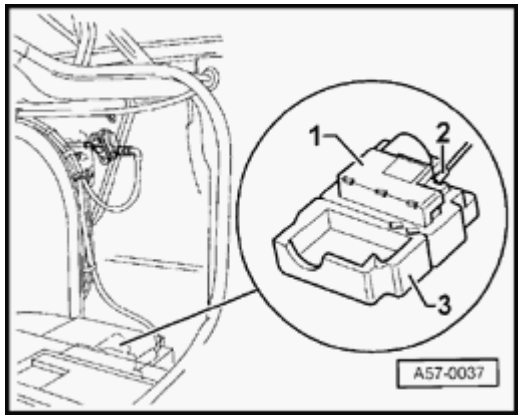


- Push ridged plate -1- to left. The first ridge of the plate -1- must snap into the first groove on the grooved segment -2-.

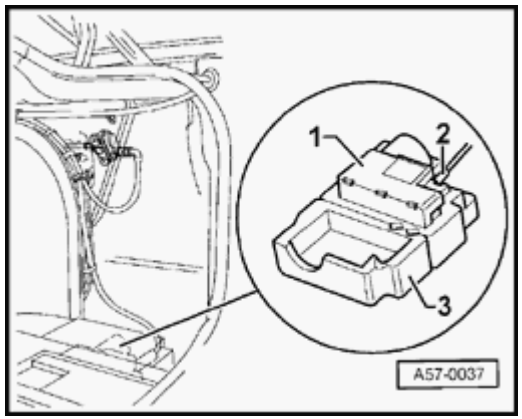
57-49

Central locking system pump, removing and installing

The pump for the central locking system is located in the right-rear of the luggage compartment under the luggage compartment trim.



- Fold back luggage compartment trim and remove insulation -3- with pump for central locking system -1-.
- Disengage connecting line -2-.

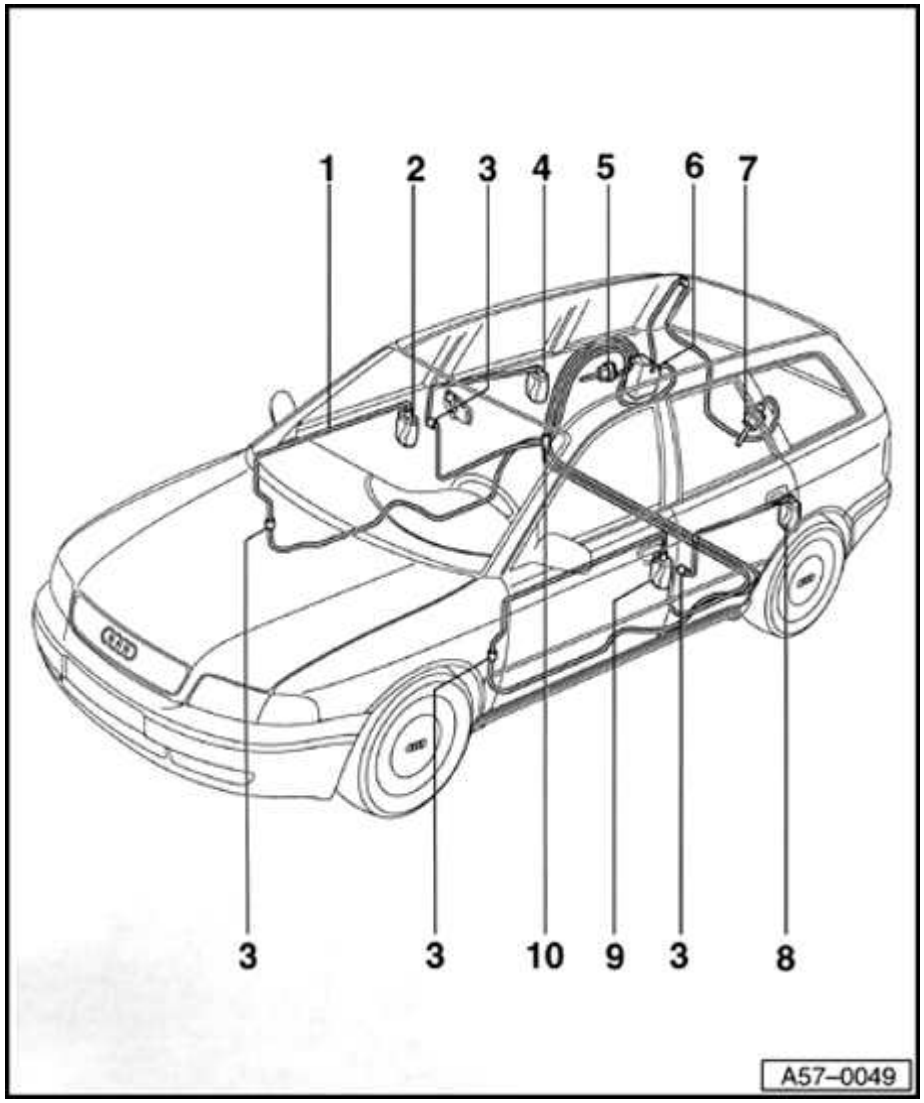


- Open insulation, disengage electrical harness connectors and remove connector -2- for vacuum line.

CAUTION!

After disconnecting all three connectors from the central locking system pump, ensure that the middle 6-pin connector (for power supply) is always plugged in last.

57-50



Central locking system (Avant), repairing

Assembly overview

1 - Pressure and vacuum lines

2 - Right-front door actuator valve

- Removing and installing ⇒ page 57-12

3 - Vacuum line connectors

- Disconnect vacuum line connectors ⇒ page 57-42

4 - Right-rear door actuator valve

- Removing and installing ⇒ page 58-14

5 - Fuel filling flap lock actuator

- Removing and installing ⇒ page 57-52

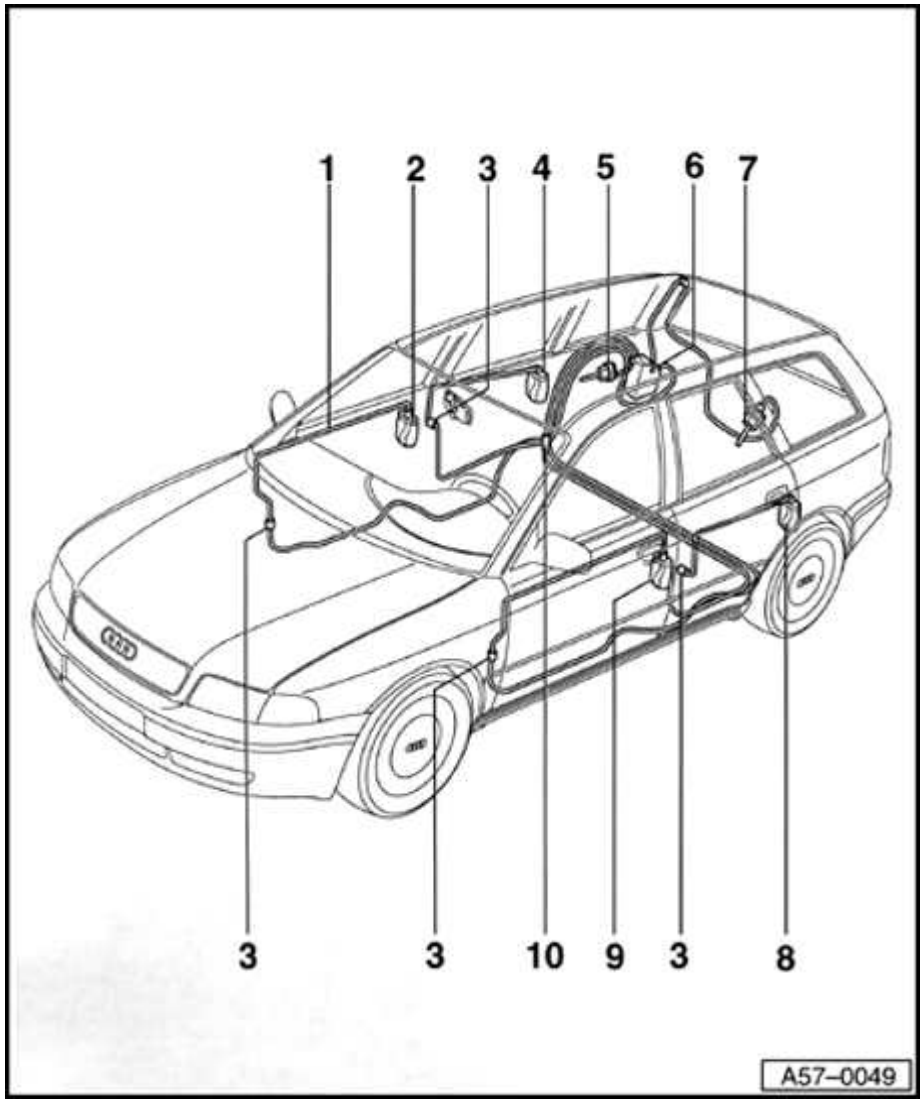
6 - Central locking system pump

- Removing and installing ⇒ page 57-56

7 - Rear lid lock actuator

- Removing and installing ⇒ page 57-53

57-51



8 - Left-rear door actuator valve

- Removing and installing same as for right door

9 - Left-front door lock actuator

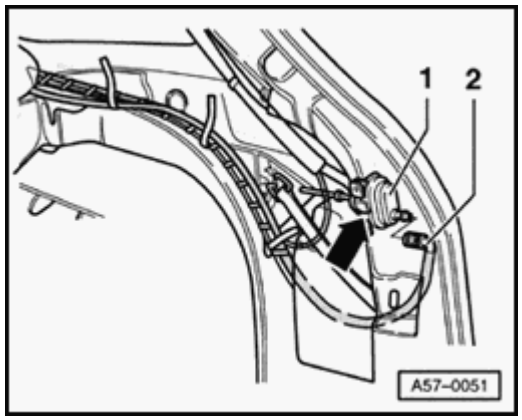
- Removing and installing same as for right door

10 - Distribution box

- Connected with all other vacuum lines, excluding lines for rear lid

57-52

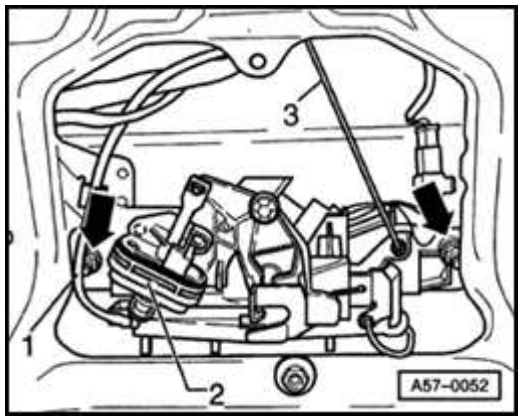
Fuel filling flap lock actuator, removing and installing



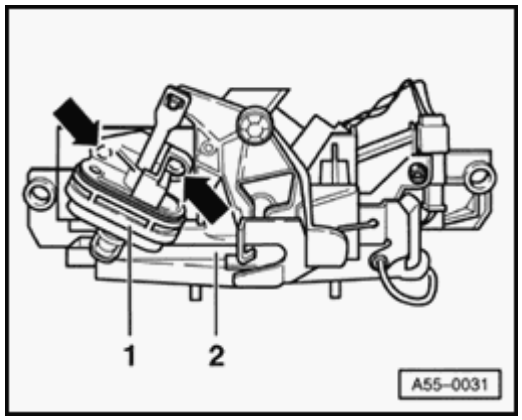
- Disengage locking mechanism from angled plug and detach vacuum line -2- from lock actuator -1-.
- To remove, press in locking lug (arrow) and pull lock actuator -1- rearward and out.
- To install, push into case until snap indicates engagement.

57-53

Rear lid lock actuator, removing and installing



- Remove tailgate trim ⇒ page 57-54 .
- Disengage lock system at plug for vacuum line -1- and remove from lock actuator -2-.



- Press clamping pins (arrow) out and remove lock actuator -1- from lock -2-.
- Clamping pins must be snapped back into expanding clips during installation.
- Pry out using screwdriver if necessary.

Note:

Illustration shows component after removal.

57-54

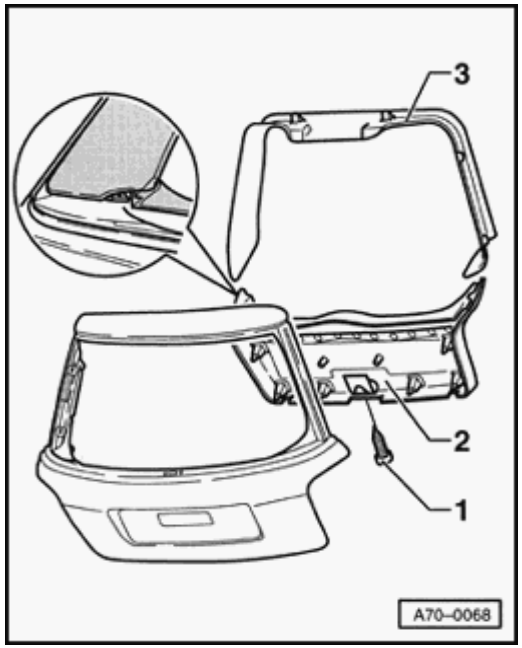


Fig. 1 Removing and installing tailgate trim

- Remove bolt -1-from handle well.

  Torque: 1.5 Nm + 0.5 Nm (13 in. lb + 4 in. lb)
- Unclip lower rear hatch trim -2-.
- Unclip upper rear hatch trim -3-.

Note:

When installing the lower trim, guide bars must be inserted in upper trim.

57-55

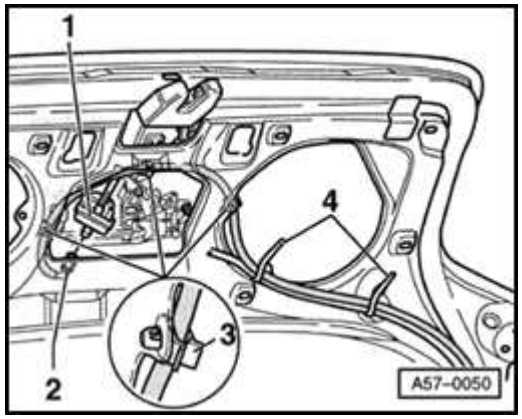
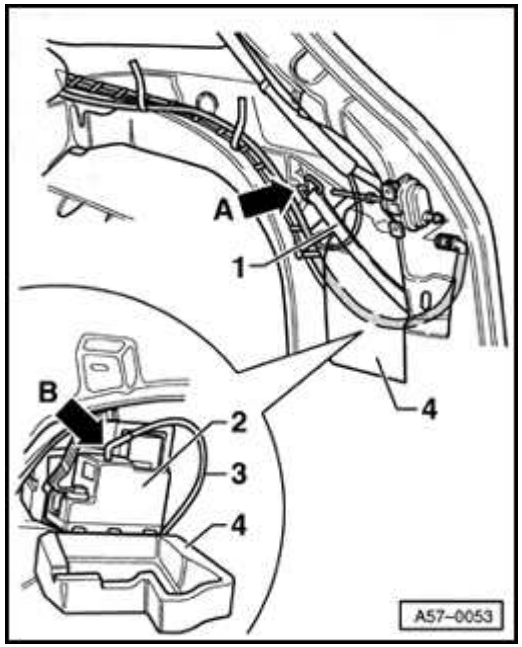


Fig. 2 Line routing

- Route pressure and vacuum lines through tie wraps -4- as shown in diagram and snap into clips -3-.
- Snap harness connector -2- into lock actuator.

57-56

Central locking system pump, removing and installing



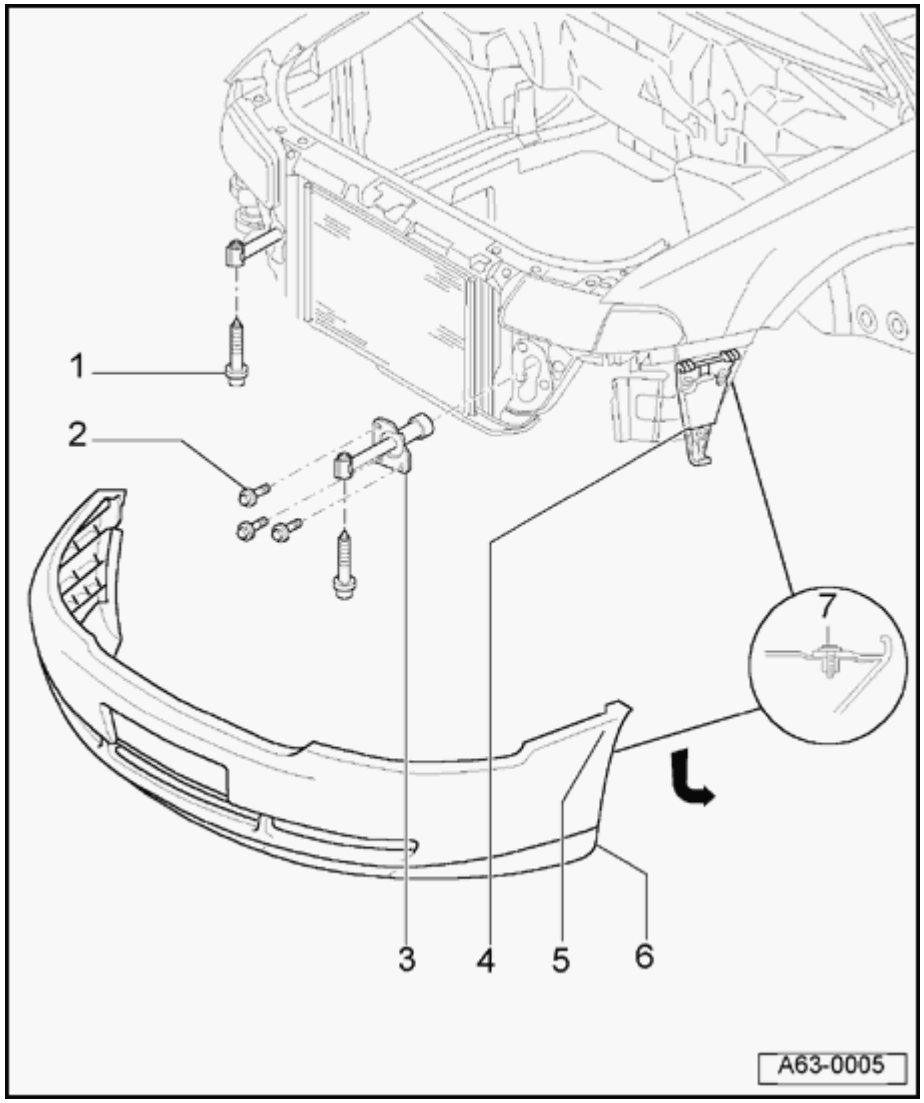
- Remove cover on side trim panel.

- Unhook tension strap -1- at arrow -A-.
- Remove insulation -4- with pump for central locking system -2- from side panel.
- Fold back insulation and remove pump.
- Disengage vacuum line connectors and detach angled plug (arrow B-).

CAUTION!

After disconnecting all three vacuum line connectors from the central locking system pump, ensure that the middle 6-pin harness connector (power supply) is always plugged in last.

63-1



Front bumper

Front bumper, removing, installing and assembly overview (➢ VIN 8D XA 200 000)

1 - Combination bolt

- 23 Nm (17 ft lb)

2 - Hex bolt

- 45 Nm (33 ft lb)
- Impact absorber is secured on right longmember with 4 hex bolts

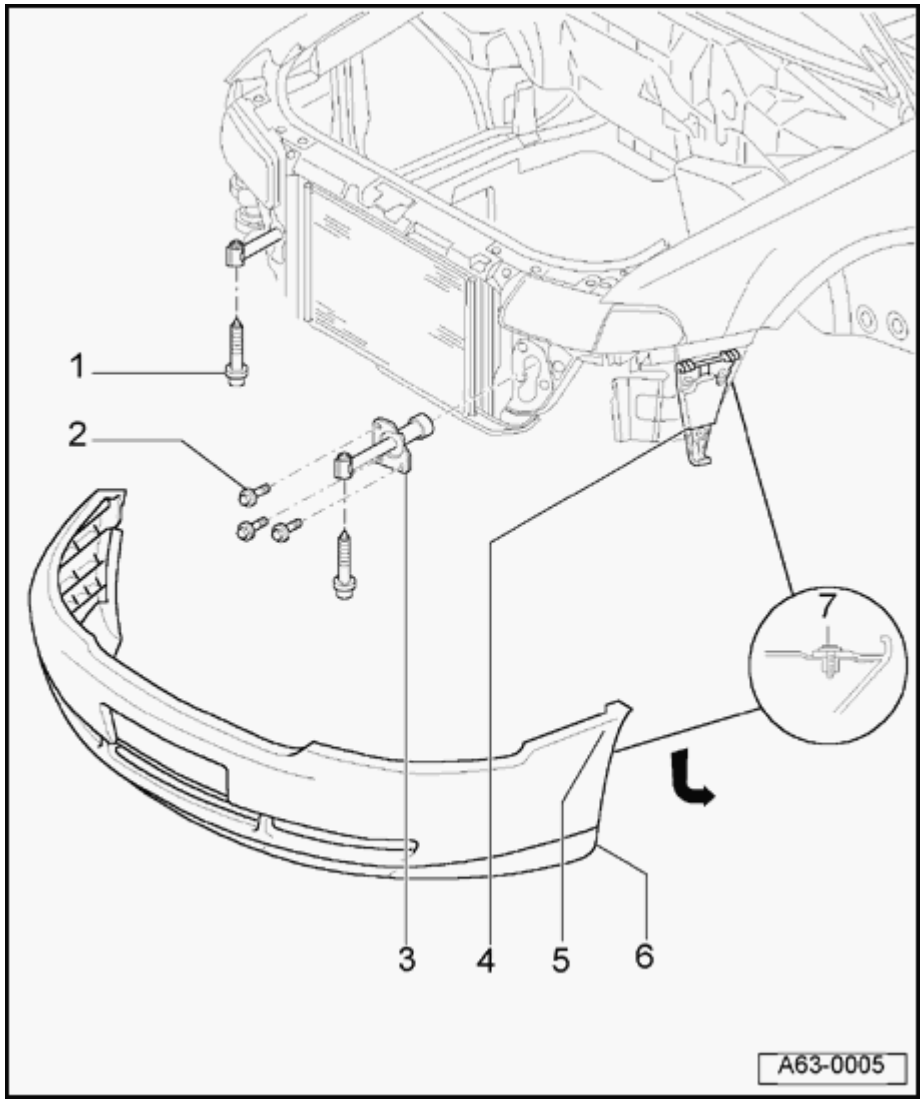
3 - Impact absorber

- To remove, remove hex bolts and pull impact absorber out front.

4 - Bracket

- Removing and installing ⇒ Fig. 2

63-2



5 - Bumper

- To remove, remove Torx® screws at wheel housing liner.
- Remove air inlet grill at bumper.
- Remove combination bolts -1-.
- When installing, tighten to 23 Nm (17 ft lb).
- Unclip bumper from bracket -4- in direction of arrow and pull off towards front.

6 - Spoiler

- Removing and installing ⇒ page 63-10

7 - Torx® screw

- 1 Nm (9 in. lb)

63-3

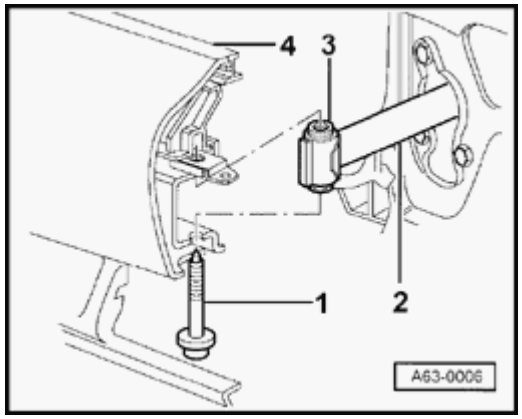


Fig. 1 Bumper height adjustment

- Bumper -4- height is adjusted by shifting threaded sleeve -3- in impact absorber -2-.
- Tighten combination bolt -1- to 23 Nm (17 ft lb).

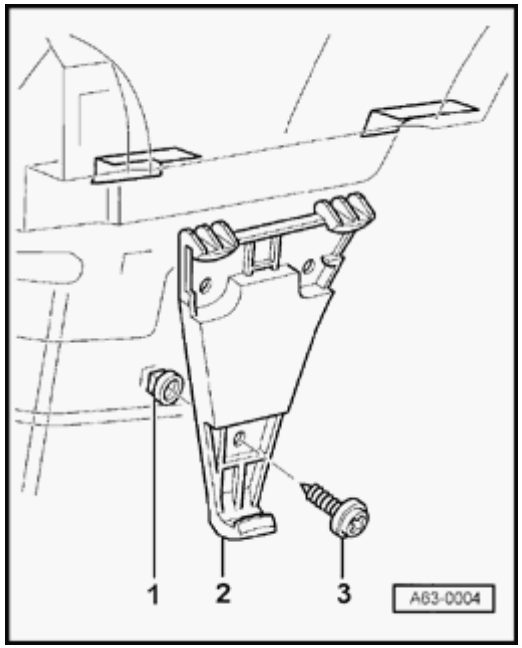


Fig. 2 Bumper bracket

- To remove, remove bolts -3- and take off bracket -2-.
- To assemble, press in clip -1-.

63-4

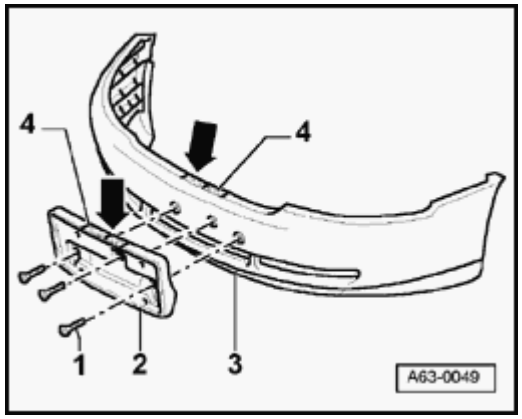


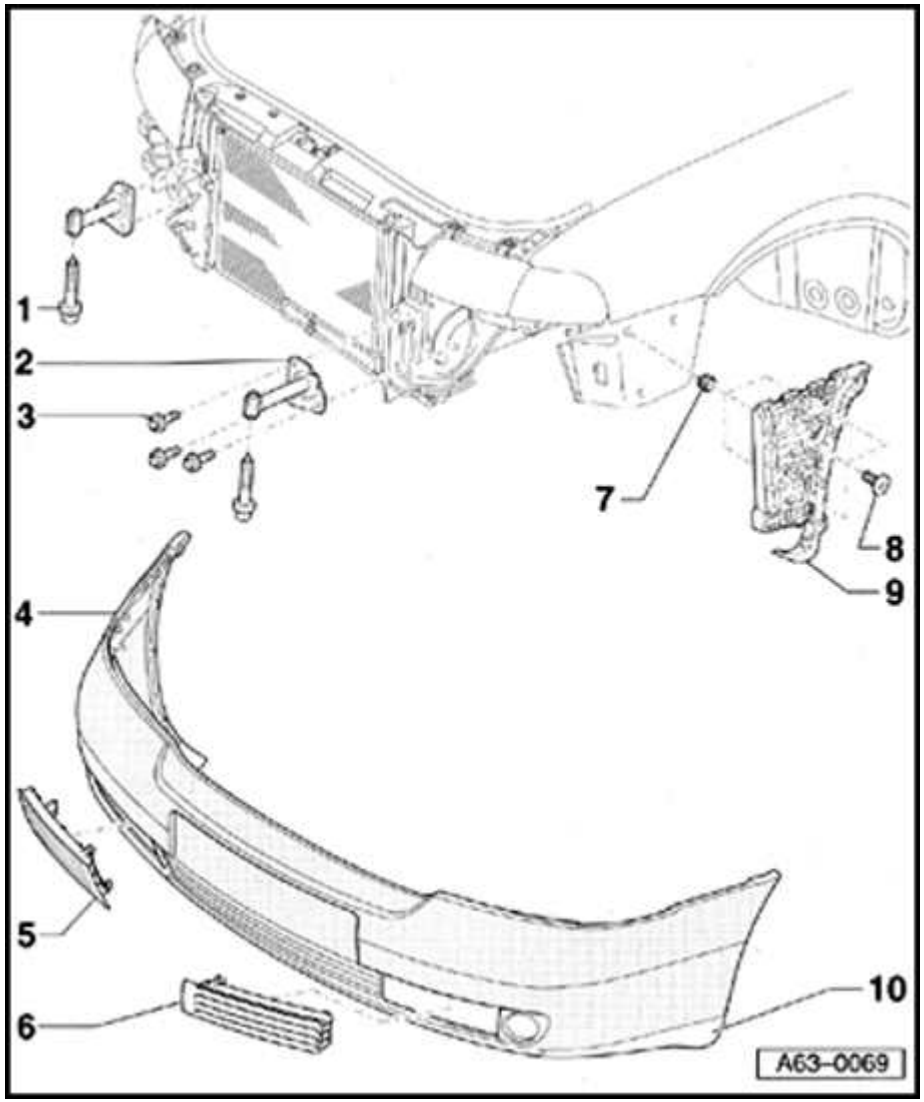
Fig. 3 Installing license plate holder

Note:

Use license plate holder as a drill hole template.

- Open hood.
- Cover area in center of bumper and license plate holder with adhesive tape -4- as shown.
- Mark middle of bumper -3- and license plate holder -2- (arrows) on adhesive tape using fine felt tip pen.
- Slide license plate holder in one continuous motion from bottom to top of bumper in centered position.
- Mark holes on bumper.
- Using drill (8 mm - 10 mm), drill holes centered around marks through bumper cover.
- Secure license plate holder -2- on bumper -3- using bolts -1-.

63-5



Front bumper, removing and installing (VIN 8D XA 200 001 >)

1 - Bolt w/washer assembly

- 23 Nm

2 - Impact absorber

- To remove, remove hex bolts and pull impact absorber out front.

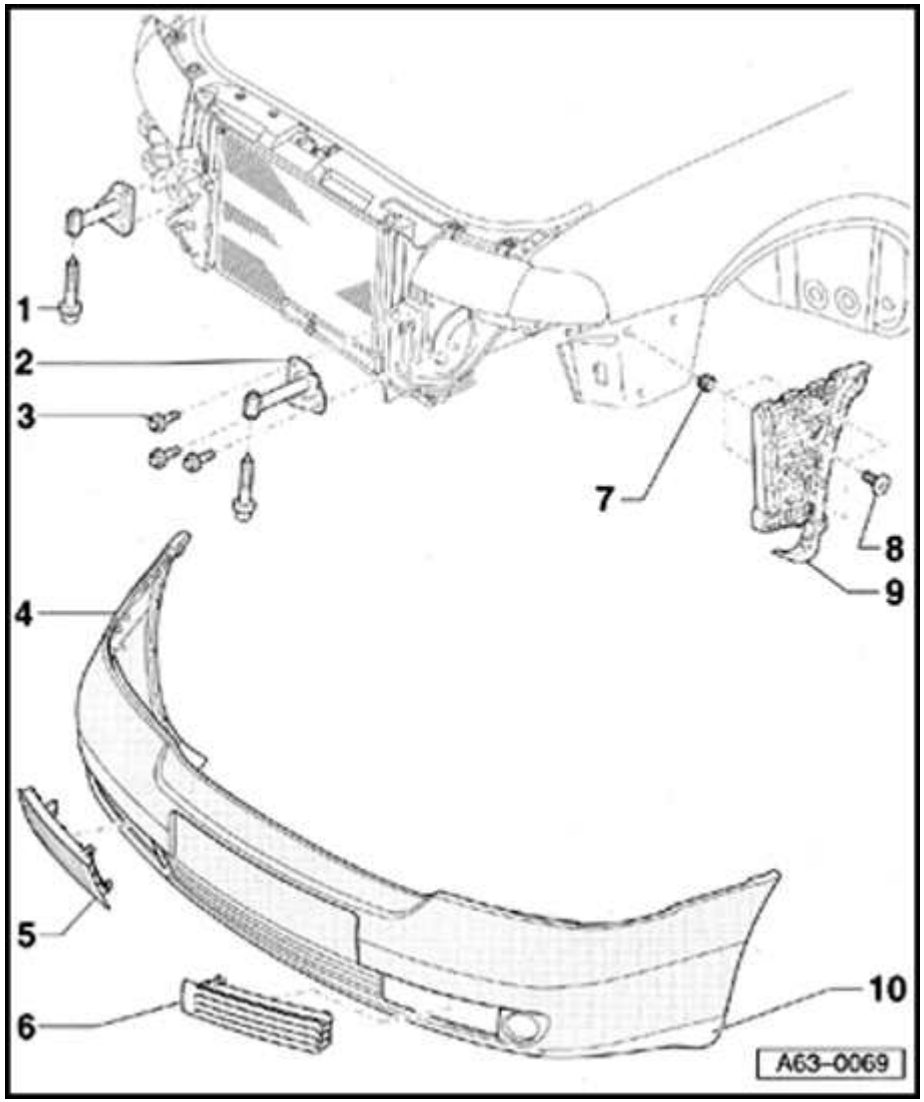
3 - Hex bolt.

- 45 Nm
- Impact absorber is secured on right longmember with 4 hex bolts.

4 - Bumper

- To remove, remove Torx screws at wheel housing liner.
- Remove air inlet grill at bumper.
- Remove bolt w/washer assembly -1-.
- When installing, tighten to 23 Nm.
- Unclip bumper from bracket -9- and remove toward front.

63-6



5 - Air inlet grill, right

- Removing and installing ⇒ page 63-7 .

6 - Air inlet grill, left

- Removing and installing same as for air inlet grill, right.

7 - Clip

- To install, press into fender.

8 - Combination bolt

- 1.5 Nm.
- Tighten bolts at top rear, top front, and at bottom in specified sequence when installing bracket.

9 - Bracket

- Removing and installing ⇒ page 63-8 .

10 - Spoiler

- Removing and installing ⇒ page 63-10 .

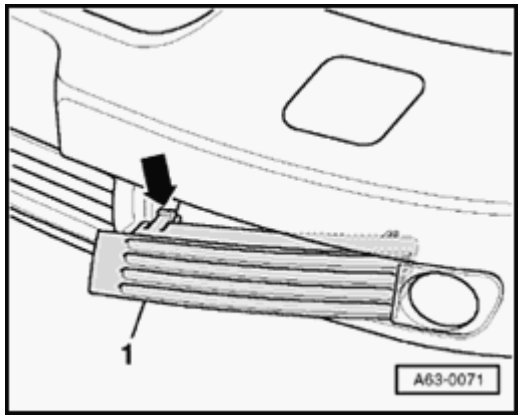
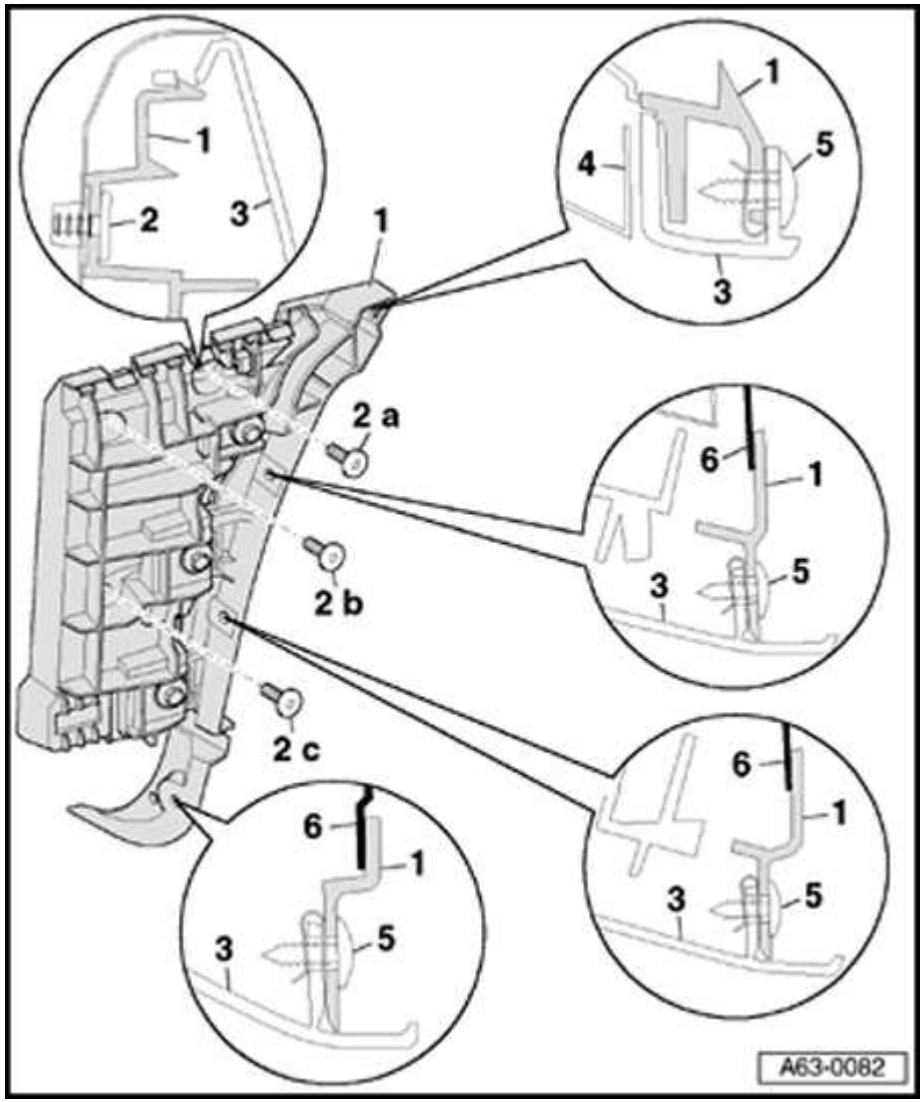


Fig. 1 Removing and installing air inlet grill

- Disengage retaining tabs at top and bottom using screwdriver (arrow).
- Remove inner end of air inlet grill first.

63-8



Bracket for front bumper, removing and installing

1 - Bracket for front bumper

- The bracket has two parts. The rear half can be shifted to adjust the length.

2 - Combination bolts

- 1.5 Nm
- Tighten bolts in sequence: -a-, -b- then -c-.

3 - Bumper

- Removing and installing ⇒ page 63-5 .

4 - Fender

5 - Metal bolt

- 1.5 Nm.

6 - Wheelhousing liner

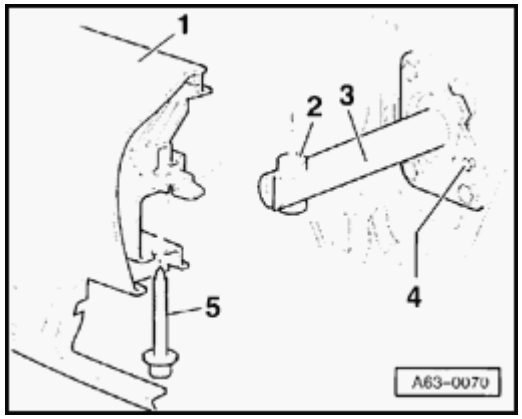
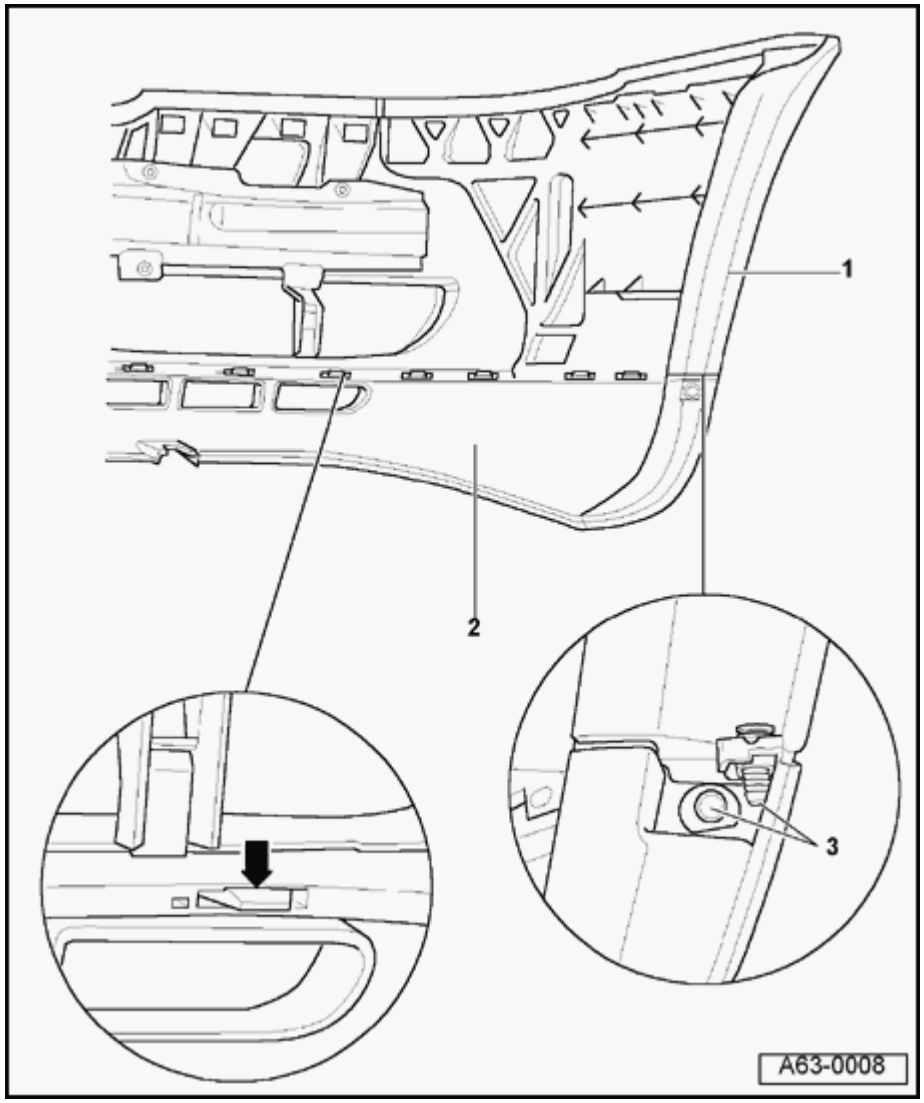


Fig. 1 Front bumper height adjustment

- Bumper -1- height is adjusted by shifting the threaded sleeve -2- in the impact absorber -3-.
- Tighten combination bolt to 23 Nm when installing bumper.
- Bolt -4- is for securing the impact absorber to the lock carrier, e.g. for service position.
- Tightening torque 4 Nm

63-10



Spoiler, removing and installing

1 - Bumper

- ♦ Remove before detaching spoiler

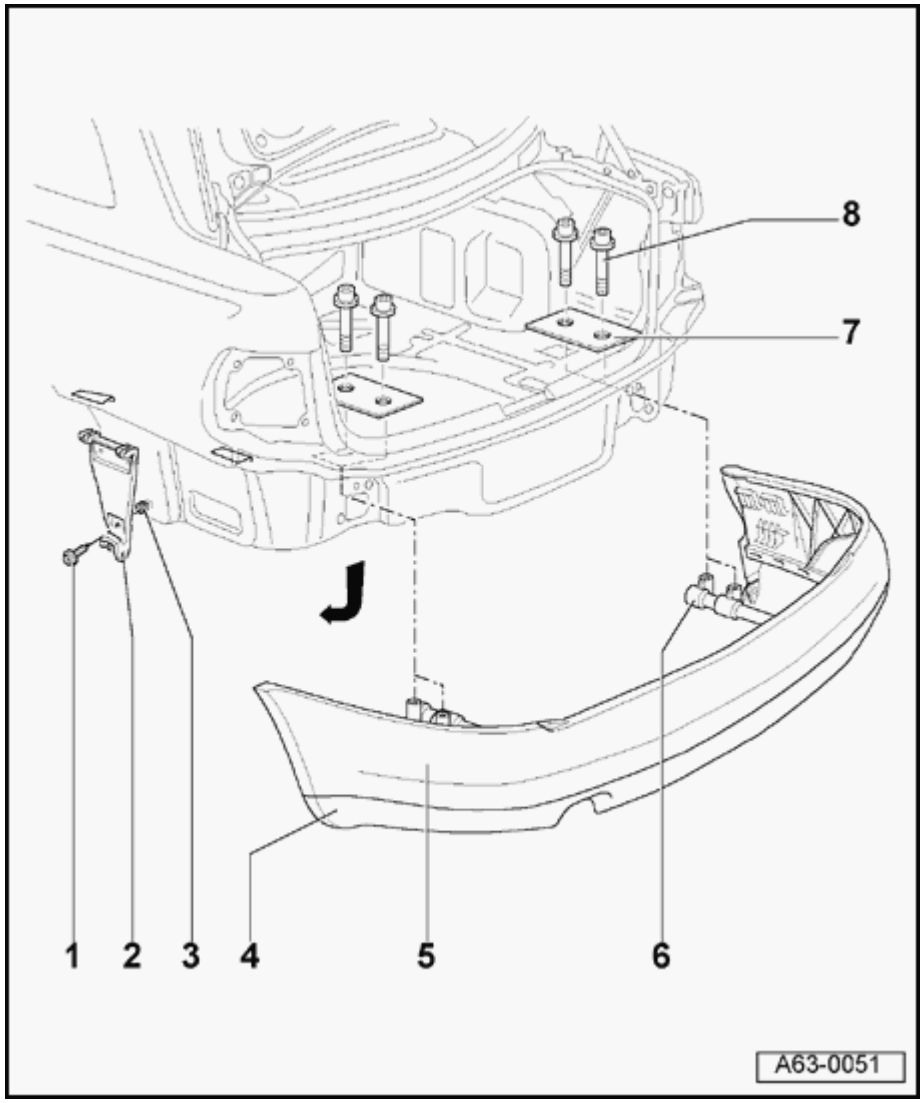
2 - Spoiler

- To remove, take out expanding clips -3- on both sides.
- Unclip retaining tabs (arrow) from spoiler and remove spoiler from bumper.

3 - Expanding clip

- To remove, pull pins out and pry out expanding clips.

63-11



Rear bumper (Sedan)

Rear bumper, removing and installing (➢ VIN 8D XA 200 000)

1 - Metal bolt

2 - Bracket

- To remove, remove metal bolts -1- and take off bracket.

3 - Clip

4 - Spoiler

- Removing and installing ⇒ page 63-10

5 - Bumper

- To remove, unscrew combination bolts -8-.
- Unclip bumper from bracket -2- in direction of arrow and pull off towards rear.

6 - Impact absorber

- Removing from bumper ⇒ Fig. 1

7 - Strengthening plate

8 - Combination bolt

- 23 Nm (17 ft lb)

63-12

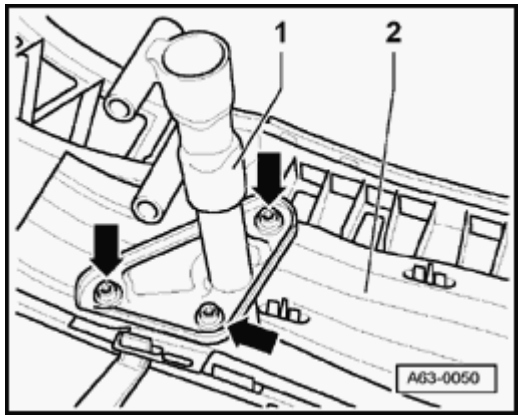
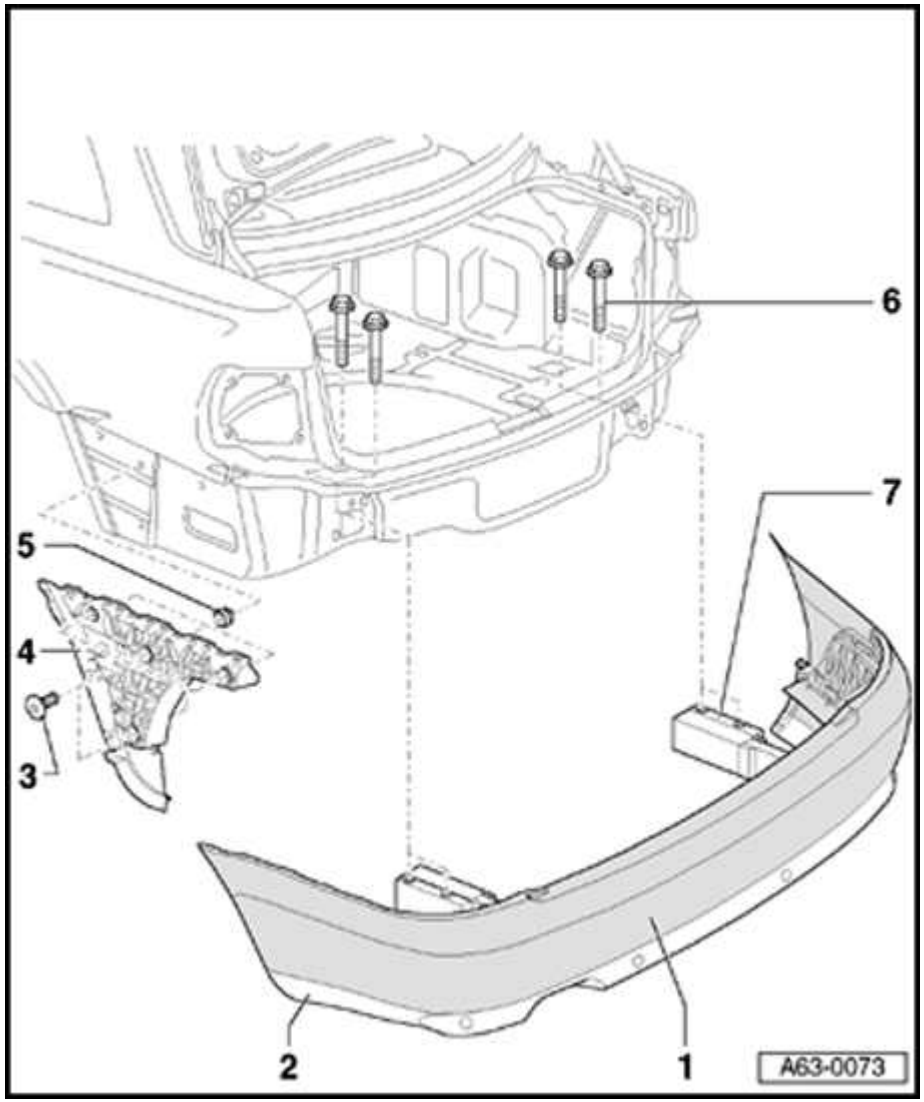


Fig. 1 Removing impact absorber from bumper

- Remove bolts (arrows) and take impact absorber -1- out of bumper -2-.
- When installing, tighten to 23 Nm (17 ft lb).

63-13



Rear bumper, removing and installing (VIN 8D XA 200 001 ➢)

1 - Bumper

- To remove, remove combination bolts -6-.
- For S4 models, an additional bolt must be installed at the wheelhousing liner ⇒ Fig. 1 .
- Unclip bumper from bracket -4- and remove toward rear.

2 - Spoiler

- Removing and installing ⇒ page 63-10 .

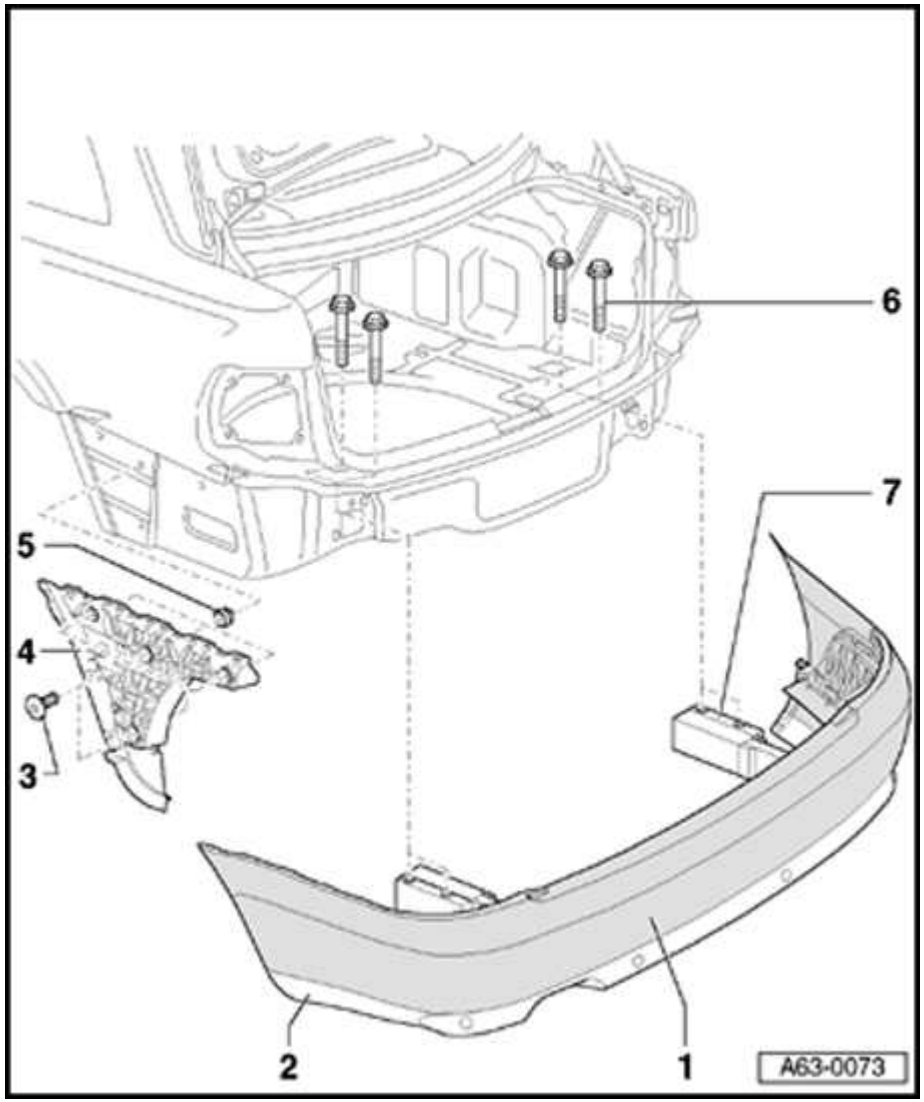
3 - Metal bolt

- 1.5 Nm.

4 - Bracket for rear bumper

- The bracket has two parts. The front half can be shifted to adjust the length.

63-14



5 - Clip

- To install, press into fender.

6 - Combination bolt

- 23 Nm

7 - Impact absorber

- Removing from bumper ⇒ Fig. 2 .

63-15

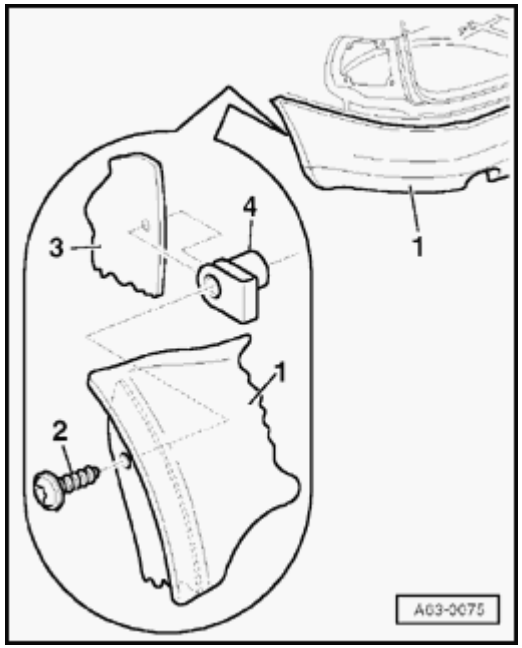


Fig. 1 Additional mount for S4

- Remove bolt -2 from wheelhousing liner before disassembling bumper -1-.
- Clip -4- is clipped onto wheelhousing liner -3-.

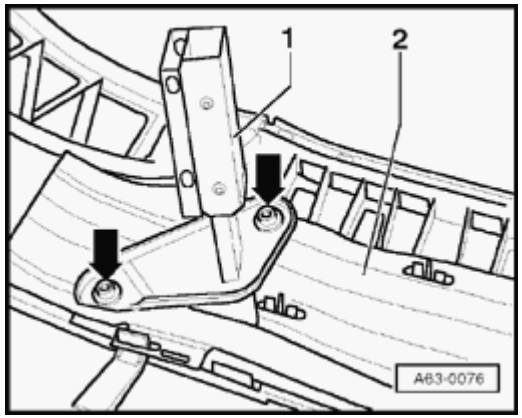
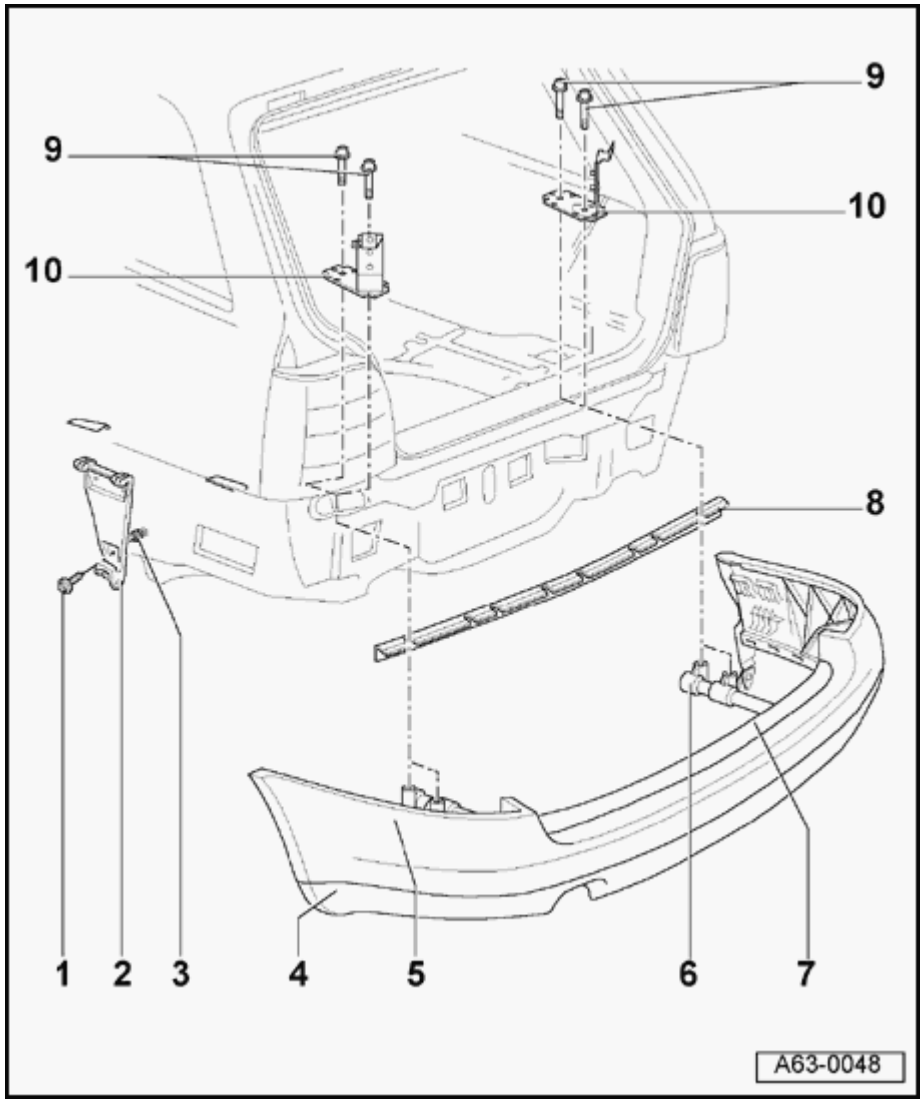


Fig. 2 Removing impact absorber from bumper

- Remove bolts (arrows) and take impact absorber -1- out of bumper -2-.
- When installing, tighten to 23 Nm.

63-16



Rear bumper (Avant)

Rear bumper, removing, installing and assembly overview (➢ VIN 8D XA 200 000)

1 - Metal bolt

2 - Bracket

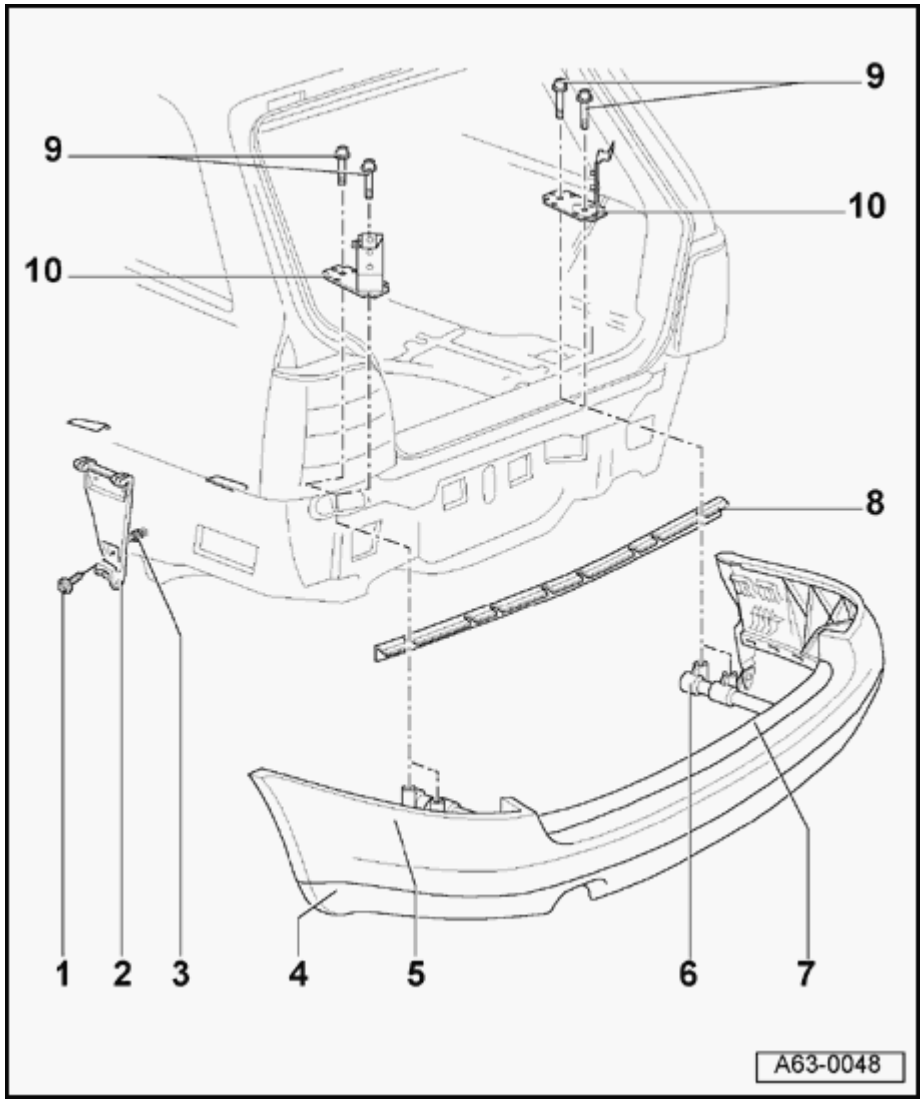
- To remove, remove metal bolts -1- and take off bracket.

3 - Clip

4 - Spoiler

- Removing and installing ⇒ page 63-10

63-17



5 - Bumper

- Before removing, remove rear panel trim.

⇒ *Repair Manual, Body-Interior, Repair Group 70*

- Remove tailgate seal in area of loading edge/side panels.
- Fold luggage compartment cover forward.
- Remove tie-downs left and right at side trim and unclip rear side trim.

⇒ *Repair Manual, Body-Interior, Repair Group 70*

- Carefully pull side trim at left and right towards vehicle interior.
- Remove combination bolts -9-.
- Unclip bumper from bracket -2- in direction of arrow and pull off towards rear.

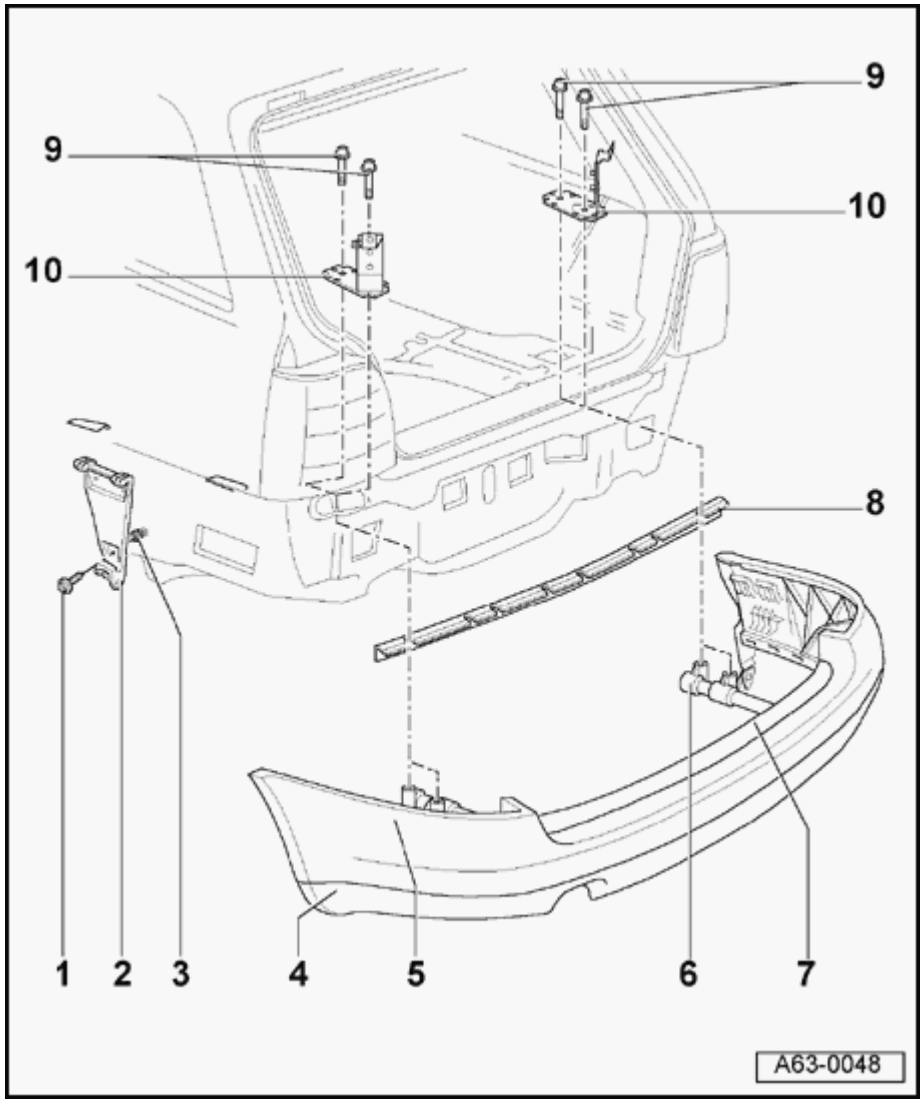
6 - Bracket

- Removing from bumper ⇒ page 63-19

7 - Cover strip

- Removing ⇒ page 63-19

63-18



8 - Support

- To remove, heat body with heat gun to approx. 40 ° C (104 ° F) and pull off support.
- To attach, heat body in adhesion area with hot air injector to approx. 40 ° C (104 ° F).

♦ Adhesion surface must be free of dust and grease

- Pull off protective foil and press on support using special tool 3356 (application roller).

9 - Combination bolt

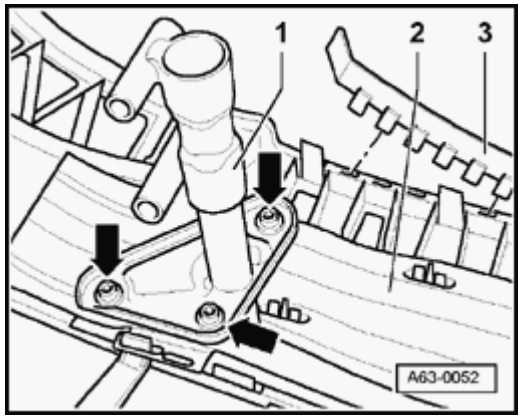
♦ 23 Nm (17 ft lb)

10 - Console

63-19

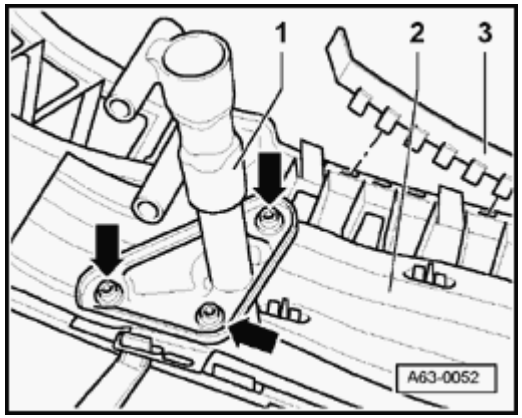
Bumper cover strip, removing

- Remove bumper ⇒ page 63-1 .



- Release locking mechanism and unclip cover strip -3- from bumper -2-.

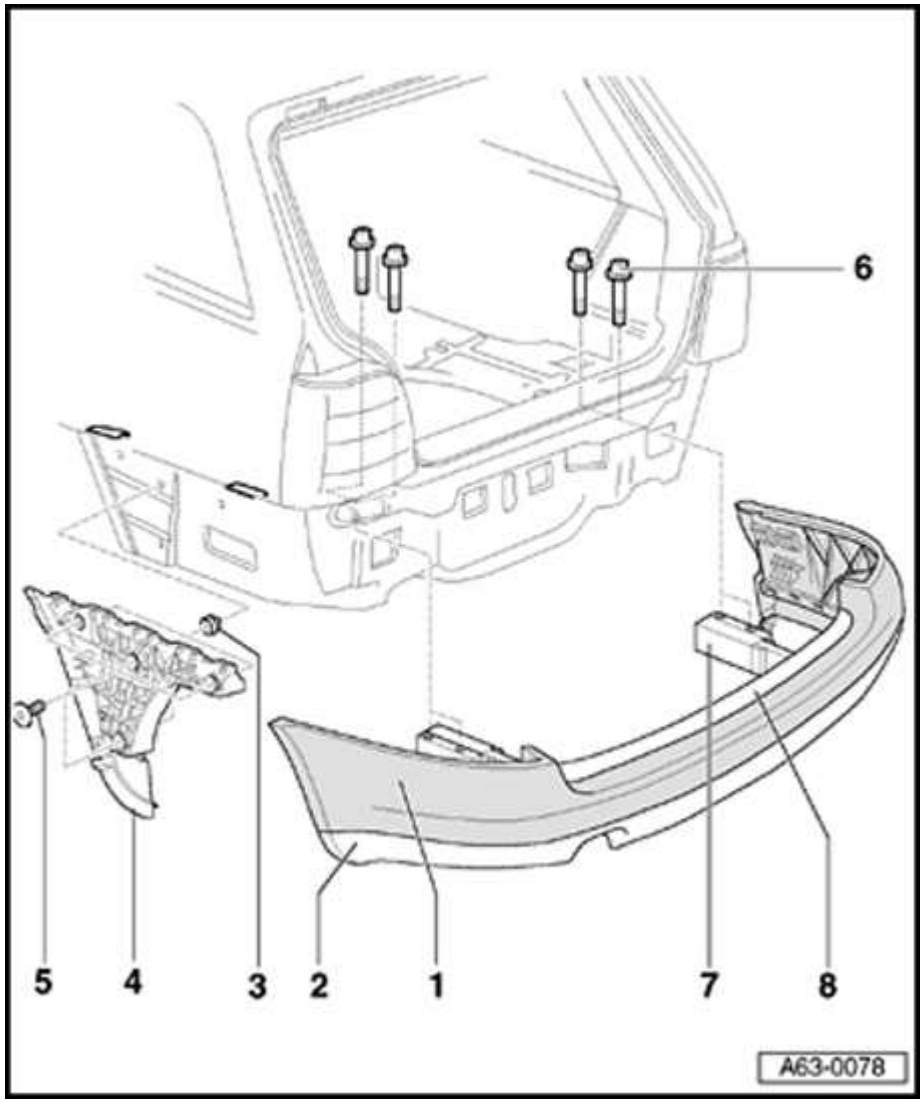
Removing bracket from bumper



- Remove bolts (arrows) and take bracket -1- out of bumper -2-.

  Tightening torque: 23 Nm (17 ft lb)

63-20



Rear bumper, removing and installing (VIN 8D XA 200 001 ➢)

1 - Bumper

- Before removing, remove rear panel trim.

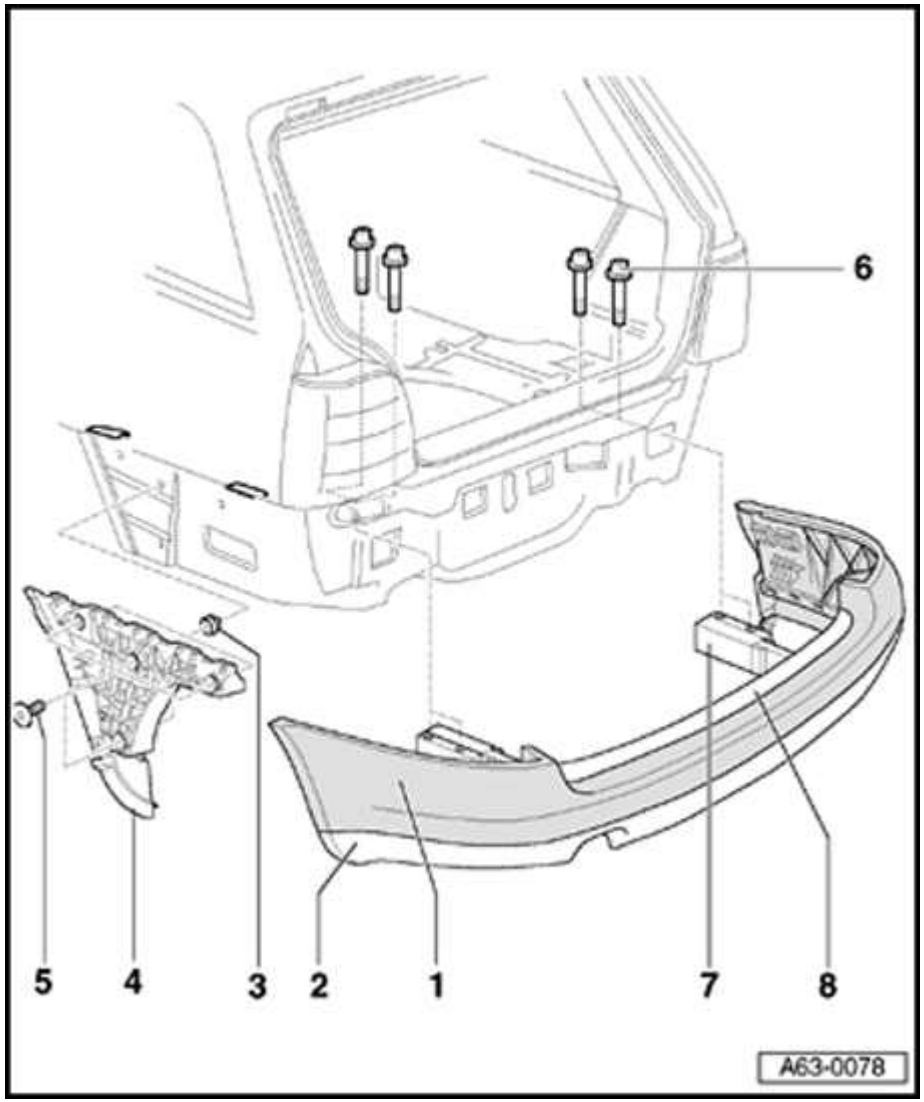
⇒ *Repair Manual, Body-Exterior, Repair Group 70, trim pieces.*

- Remove rear lid seal around loading edge and sides.
- Fold luggage compartment cover forward.
- Remove tie-downs left and right at side trim and unclip rear side trim.

⇒ *Repair Manual, Body-Exterior, Repair Group 70, trim pieces.*

- Carefully pull side trim at left and right toward vehicle interior.
- Remove screw w/washer assembly -6-.
- Unclip bumper from bracket -4- and remove toward rear.

63-21



2 - Spoiler

- Removing and installing ⇒ page 63-10 .

3 - Clip

4 - Bracket

- To remove, remove metal bolts -5- and remove bracket -2-.

5 - Metal bolt

6 - Screw w/washer assembly

- 23 Nm

7 - Bracket

- Removing from bumper ⇒ page 63-22 .

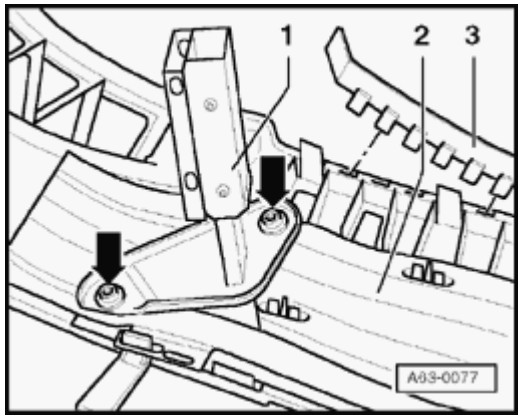
8 - Cover strip

- Removing ⇒ page 63-22 .

63-22

Bumper cover strip, removing

- Remove rear bumper ⇒ page 63-20 .



- Release locking mechanism and unclip cover strip -3- from bumper -2-.
- for removing impact absorber.

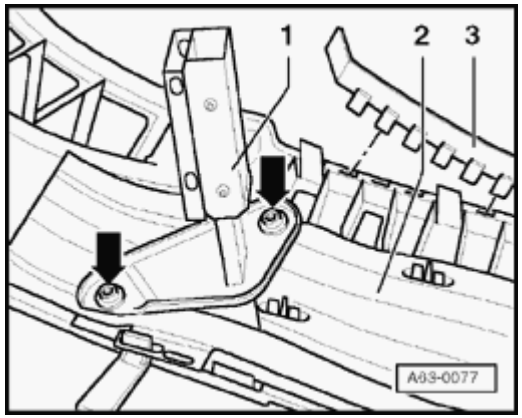
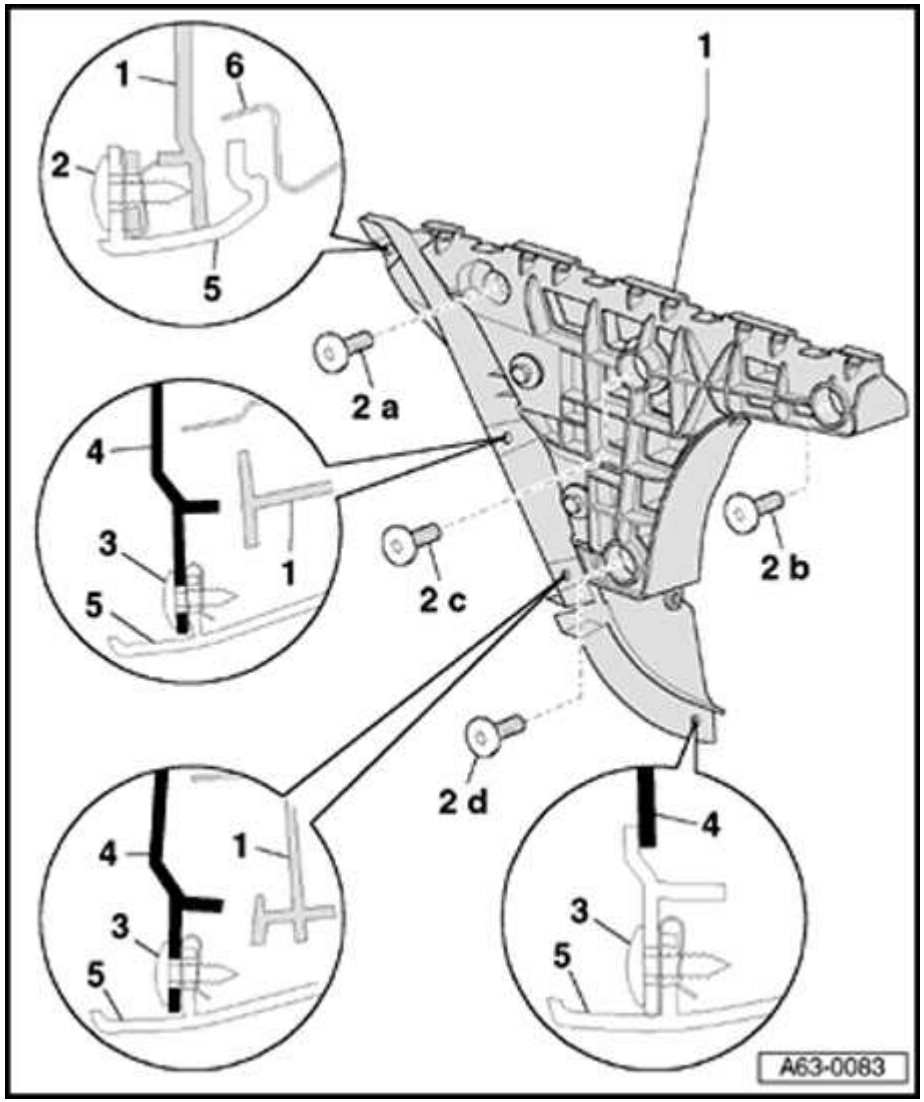


Fig. 1 Removing bracket from bumper

- Remove bolts (arrows) and take bracket -1- out of bumper -2-.
- Installation tightening torque 23 Nm.

63-23



Bracket for rear bumper, removing and installing

1 - Bracket for rear bumper

- The bracket has two parts. The front half can be shifted to adjust the length.

2 - Combination bolts

- 1.5 Nm.
- Tighten bolts in sequence -a-, -b-, -c- then -d-.

3 - Metal bolt

- 1.5 Nm.

4 - Wheelhousing liner, rear

5 - Rear bumper

- Removing and installing ⇒ page 63-20 .

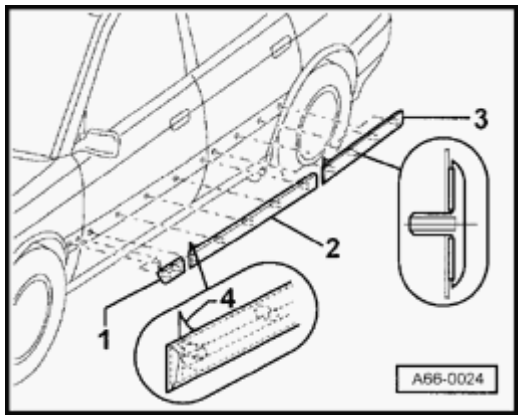
66-1

Protective trim moldings

Protective trim moldings, removing and installing

Note:

Protective trim moldings cannot be removed without destroying them.



- Make sure all bonding surfaces are free of dust and grease.

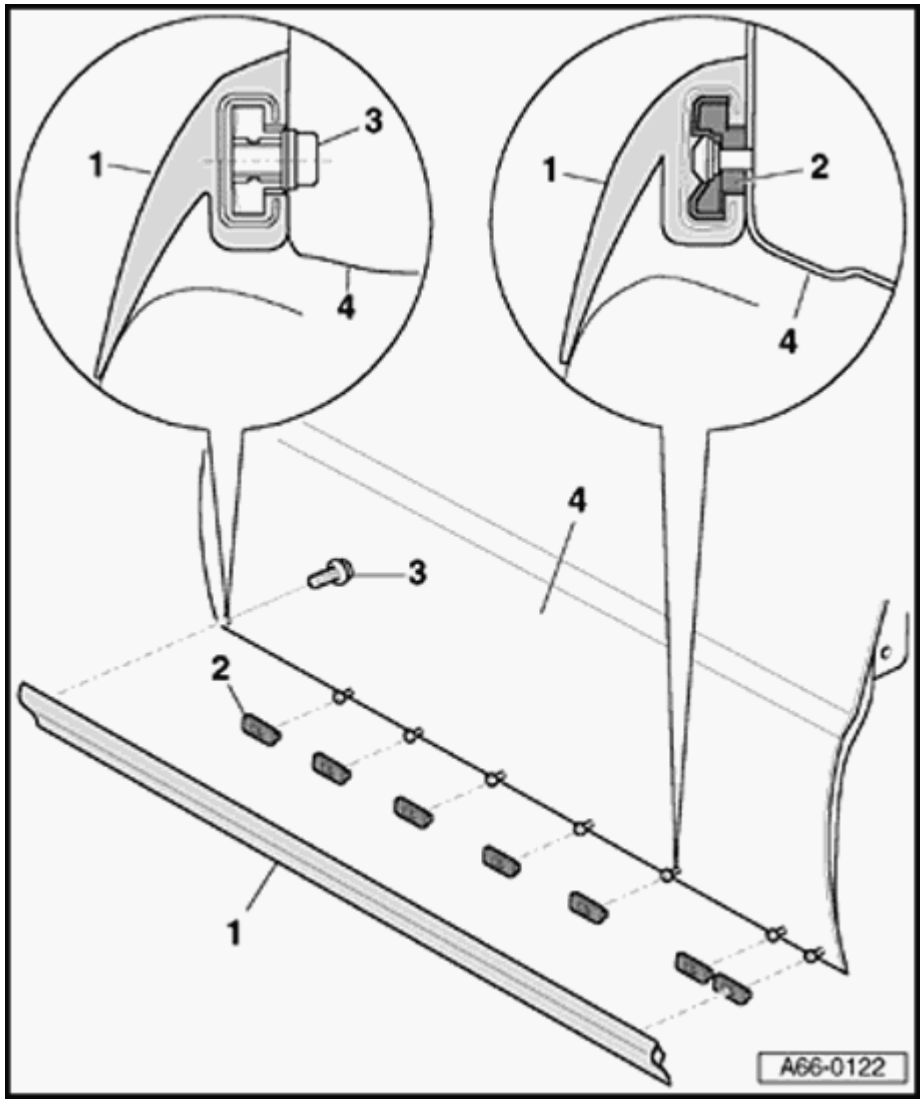
Protective trim moldings must only be installed at room temperature. Vehicle and protective trim molding (to be installed) must be left at room temperature for at least 2 hours before treating.

- Pull off backing sheet -4- shortly before installing.

Protective trim molding must be installed within 90 minutes after backing sheet has been removed.

- Position protective trim moldings -1-, -2-, or -3- at front with guide stud and bond toward rear.
- Apply pressure of 100 N/cm to protective trim moldings by pressing against or using roller.
- Vehicle must remain at room temperature for 4 hours (minimum) after installing moldings.

66-2



Lower trim strip for front door

Lower trim strip, removing and installing

1 - Lower trim strip

- Remove combination bolt -3- and slide trim strip toward rear out of retaining clips -2-.
- Remove trim strip laterally from door.
- Installation is the reverse of removal.

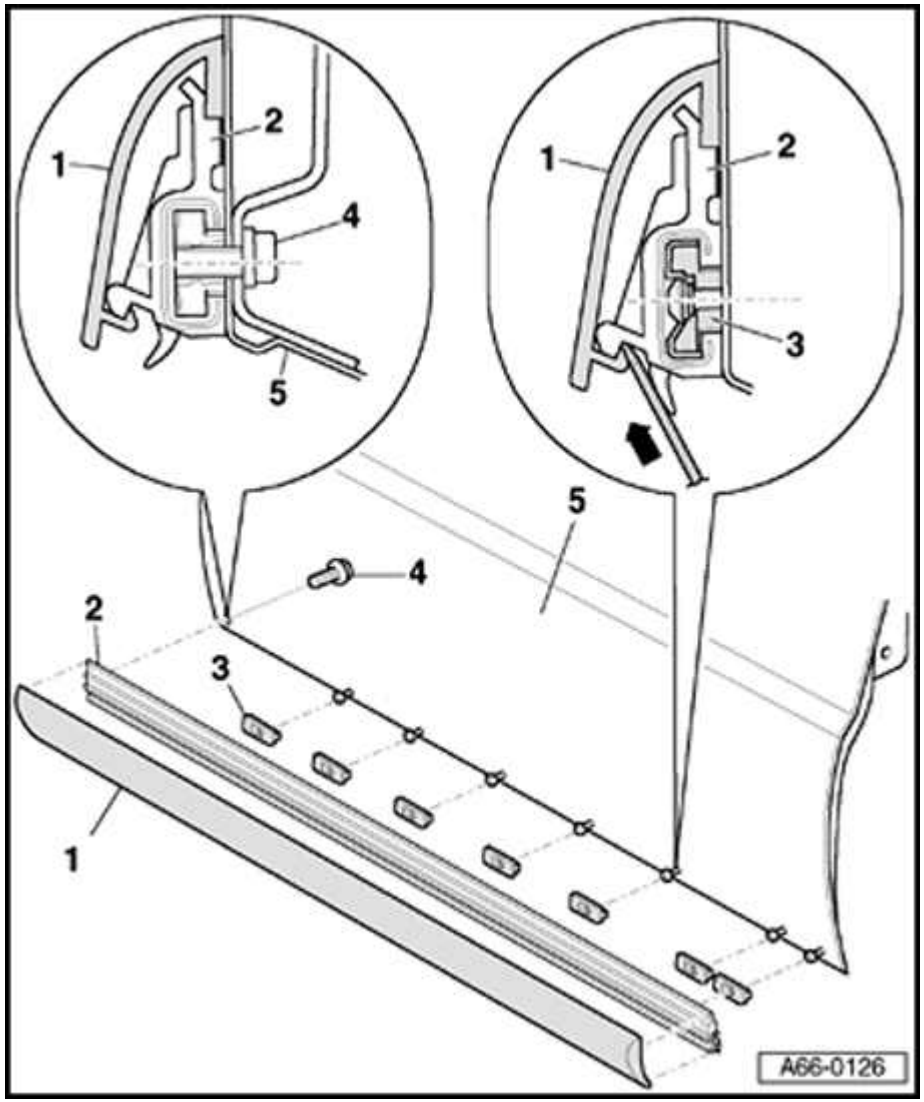
2 - Retaining clip

3 - Combination bolt

- 1 Nm

4 - Front door

66-3

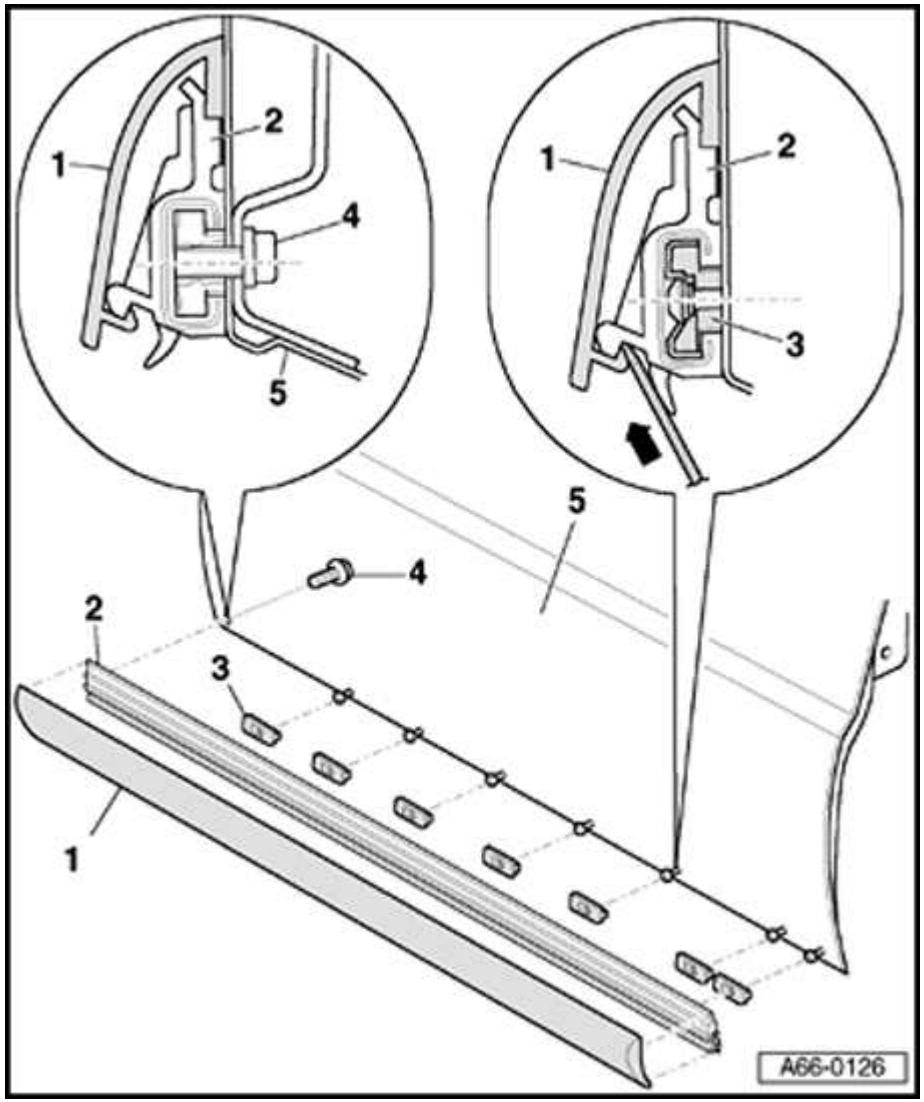


Lower trim strip, removing and installing (S4)

1 - Lower trim strip

- Removing:
  - Use screwdriver to gradually press tab on retaining strip upward and out of trim strip in direction of arrow.
  - Pull trim strip to side out of retaining strip during this process.
- Installing:
  - Align trim strip and place onto retaining strip from top to bottom.
  - Press lower trim strip onto retaining strip from side.

66-4



2 - Retaining strip

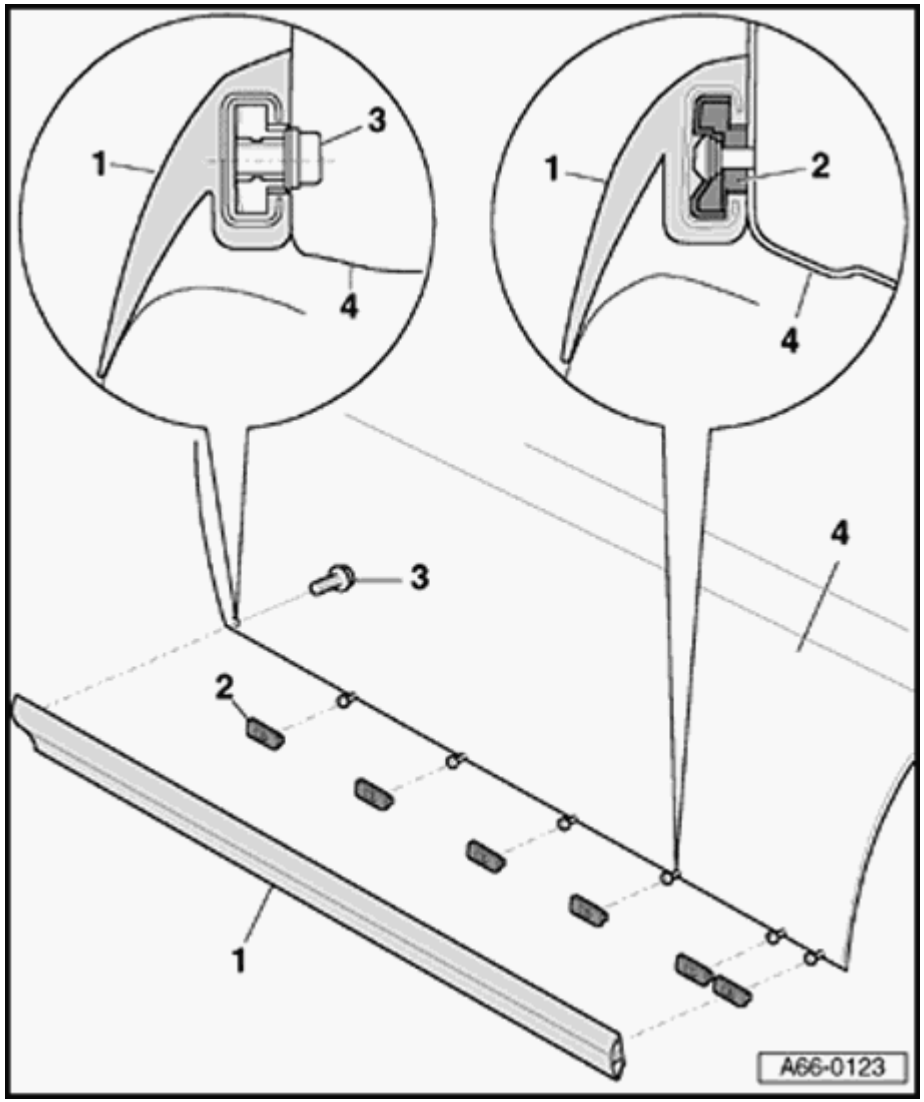
3 - Retaining clip

4 - Combination bolt

- ♦ 1 Nm

5 - Front door

66-5



Lower trim strip for rear door

Lower trim strip, removing and installing

1 - Lower trim strip

- Remove combination bolts -3- and slide trim strip out of retaining clips -2- toward rear.
- Remove trim strip from toward side of door.
- Installation is the reverse of removal.

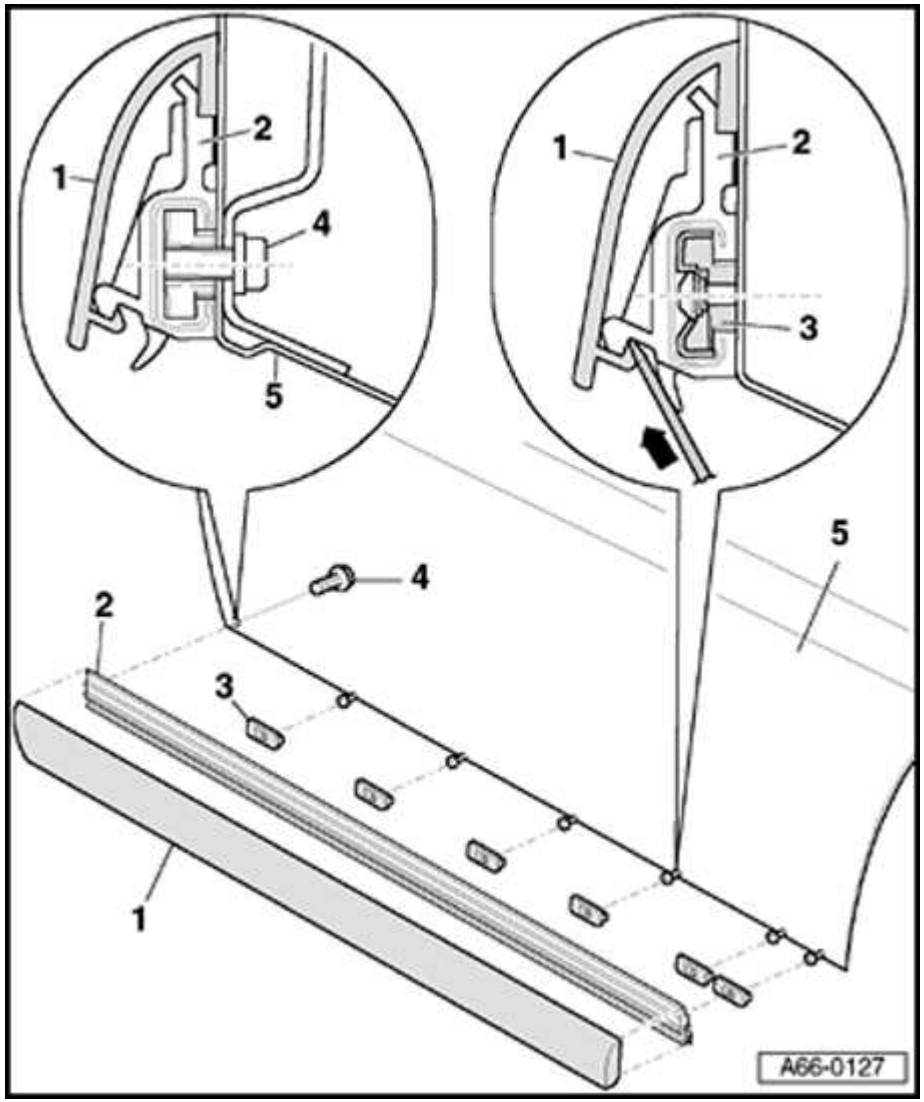
2 - Retaining clip

3 - Combination bolt

- 1 Nm

4 - Rear doors

66-6

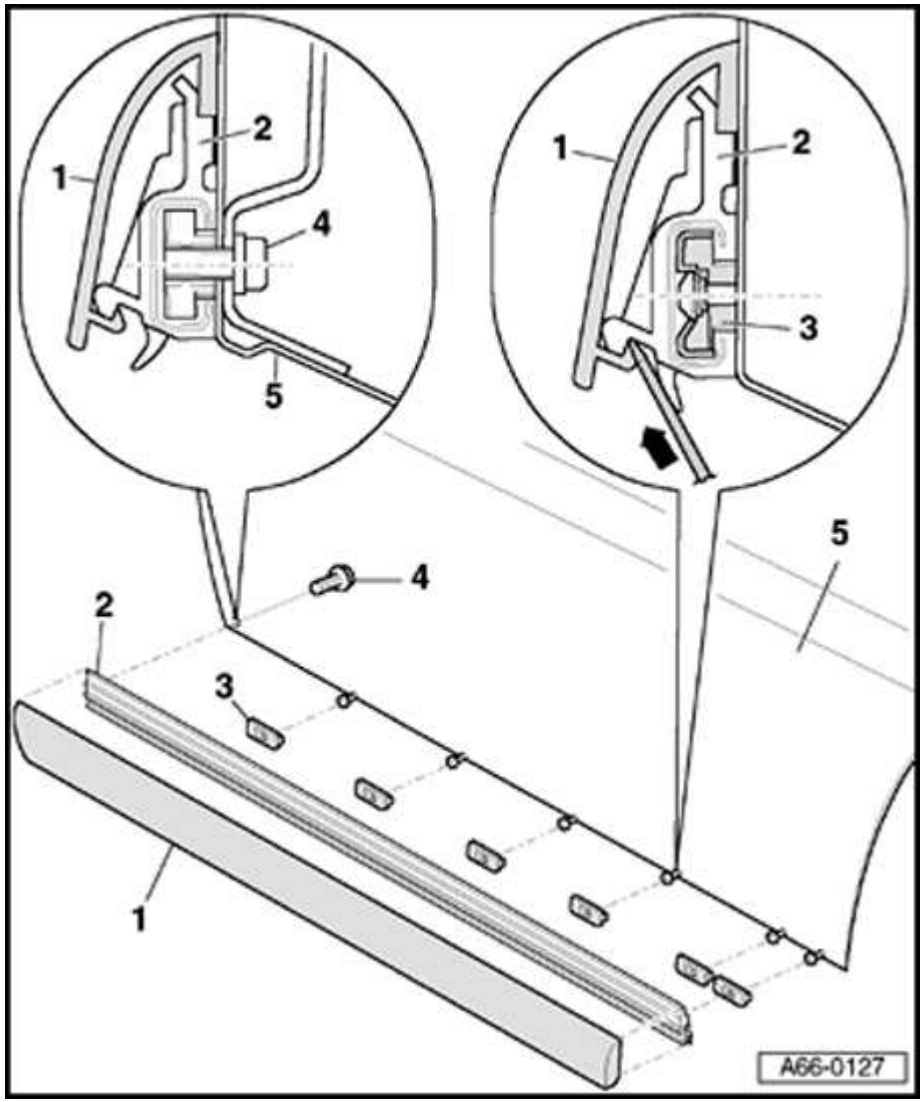


Lower trim strip, removing and installing (S4)

1 - Lower trim strip

- Removing:
  - To remove, gradually press tab on retaining strip upward and out of trim strip (arrow).
  - Pull trim strip to side out of retaining strip during this process.
- Installing:
  - Align trim strip and place onto retaining strip from top to bottom.
  - Press lower trim strip onto retaining strip from side.

66-7



2 - Retaining strip

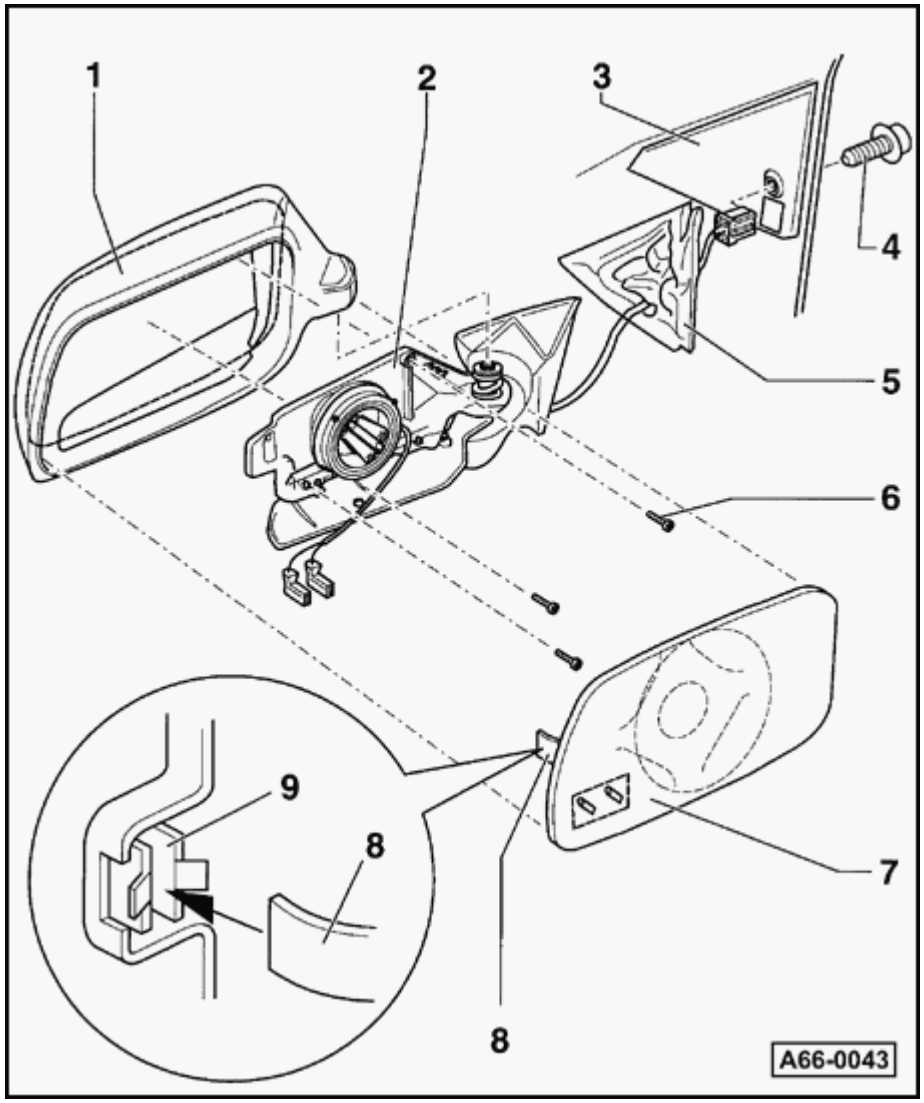
3 - Retaining clip

4 - Combination bolt

- ♦ 1 Nm

5 - Rear doors

66-14



Door mirrors

Door mirrors, removing and installing

1 - Mirror housing

- Can be removed from door without removing mirror completely ⇒ page 66-16

2 - Mirror adjustor

- Before removing, remove mirror from door
  - To remove, pry off mirror glass, disconnect harness connectors for mirror heating, remove phillips head screws -6- and take mirror adjustor -1- out of mirror housing.

Note:

On vehicles with seat memory, door trim must be removed before removing mirror adjustor.

3 - Door component carrier

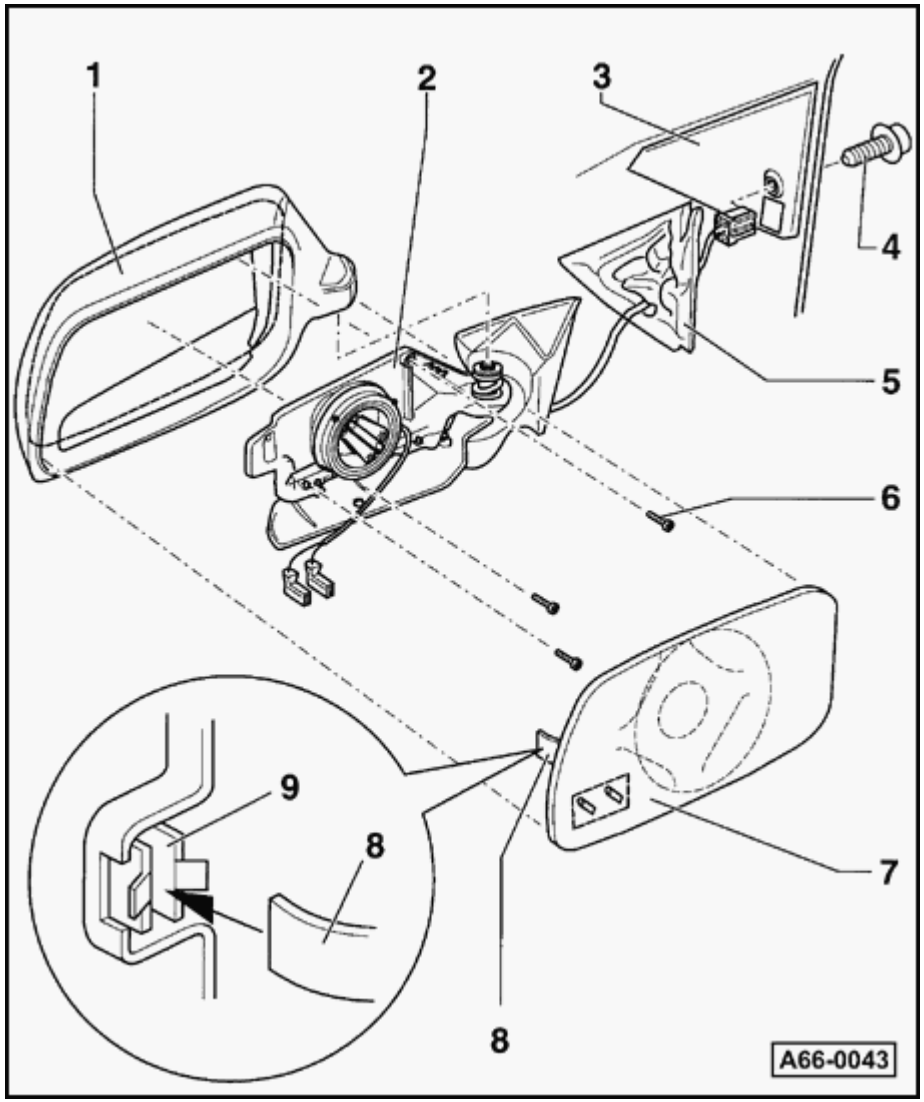
4 - Socket head screw

- 12 Nm (9 ft lb)

5 - Seal

- Check for correct fit during installation.

66-15



6 - Phillips head screw

- 1 Nm (9 in. lb)

7 - Mirror glass

- To remove, use special tool 80-200 (assembly lever).
- Use fabric reinforced adhesive tape at top and bottom to protect mirror housing from paint damage
- Pry mirror out at bottom first, then top.
- To install, first insert mirror lens into guide stud and friction finger in friction spring, then press on.
- Apply pressure only to center of lens; always wear protective gloves

8 - Friction finger

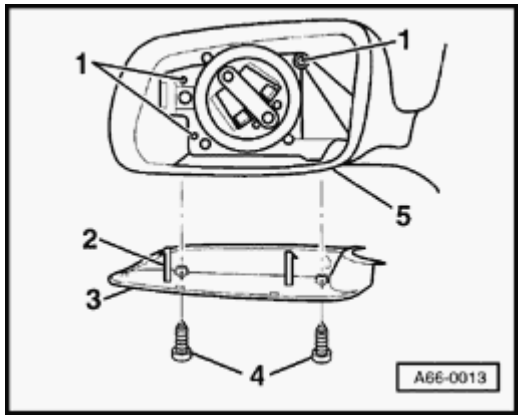
- Friction finger -8- must be pushed into friction spring -9- when inserting mirror glass in housing

9 - Friction spring

66-16

Door mirror housing, replacing

- Remove mirror glass.



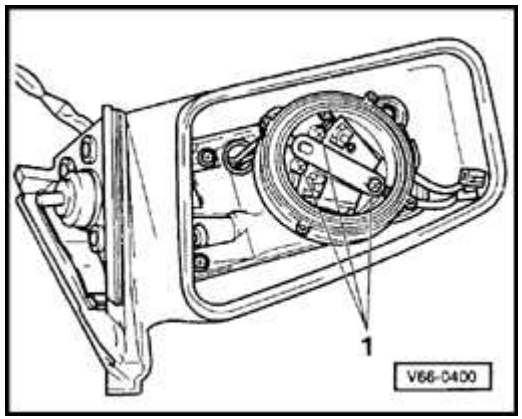
- Remove screws -4- (2x).
- Press back retainers -2- and take off cover -3- downward.
- Remove screws -1- at mirror adjusting unit (3x).
- Lift up housing -5- and remove.

66-17

Power mirror adjuster, replacing

- Disconnect battery.

- Remove mirror glass.



- Remove screws -1- (3x)

  Tightening torque: 1 Nm (9 in. lb)

- For mirror adjusting units with harness connectors, these should be removed before disassembly.

Note:

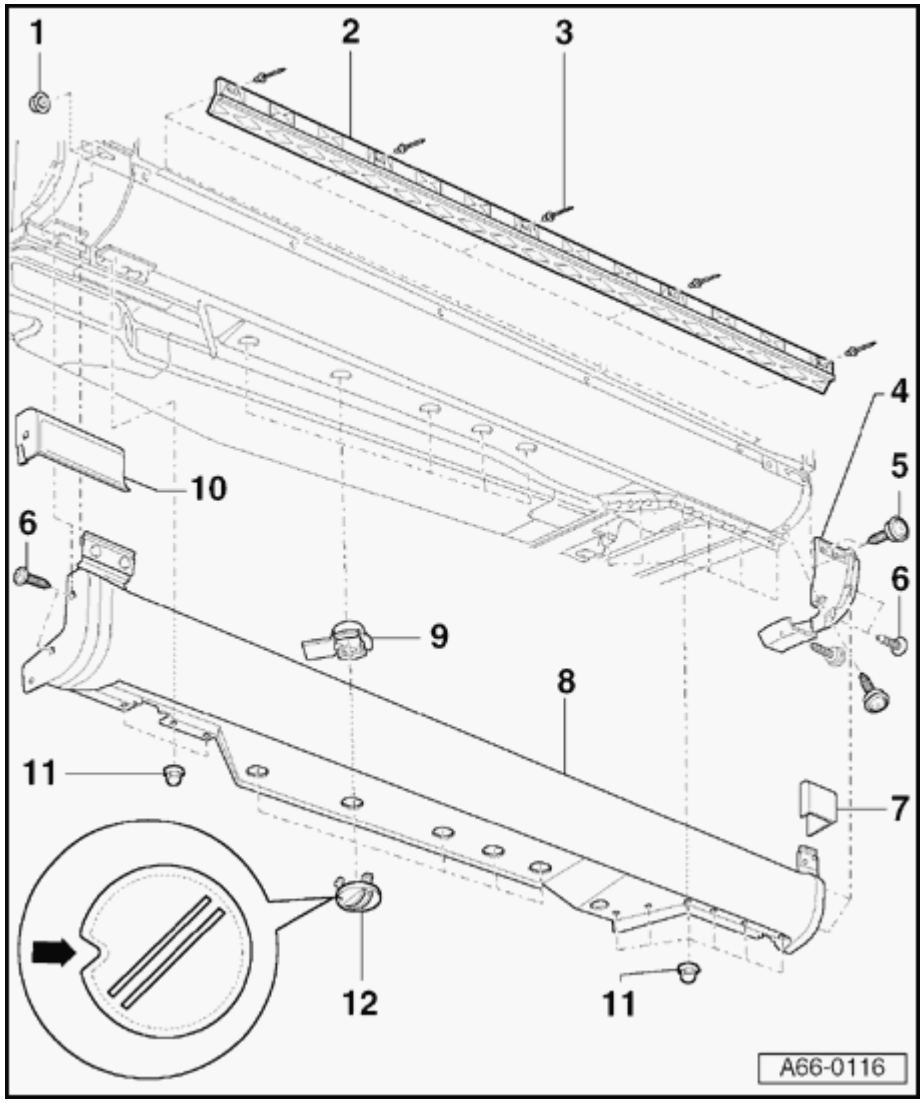
For mirror adjusting units with soldered wires, these should be separated individually directly at the housing.

- Install wiring into connector housing enclosed with replacement unit.

Note:

Transfer wire routing from old power mirror adjuster using correct wiring diagram.

66-22



Rocker panel cover, removing and installing (S4)

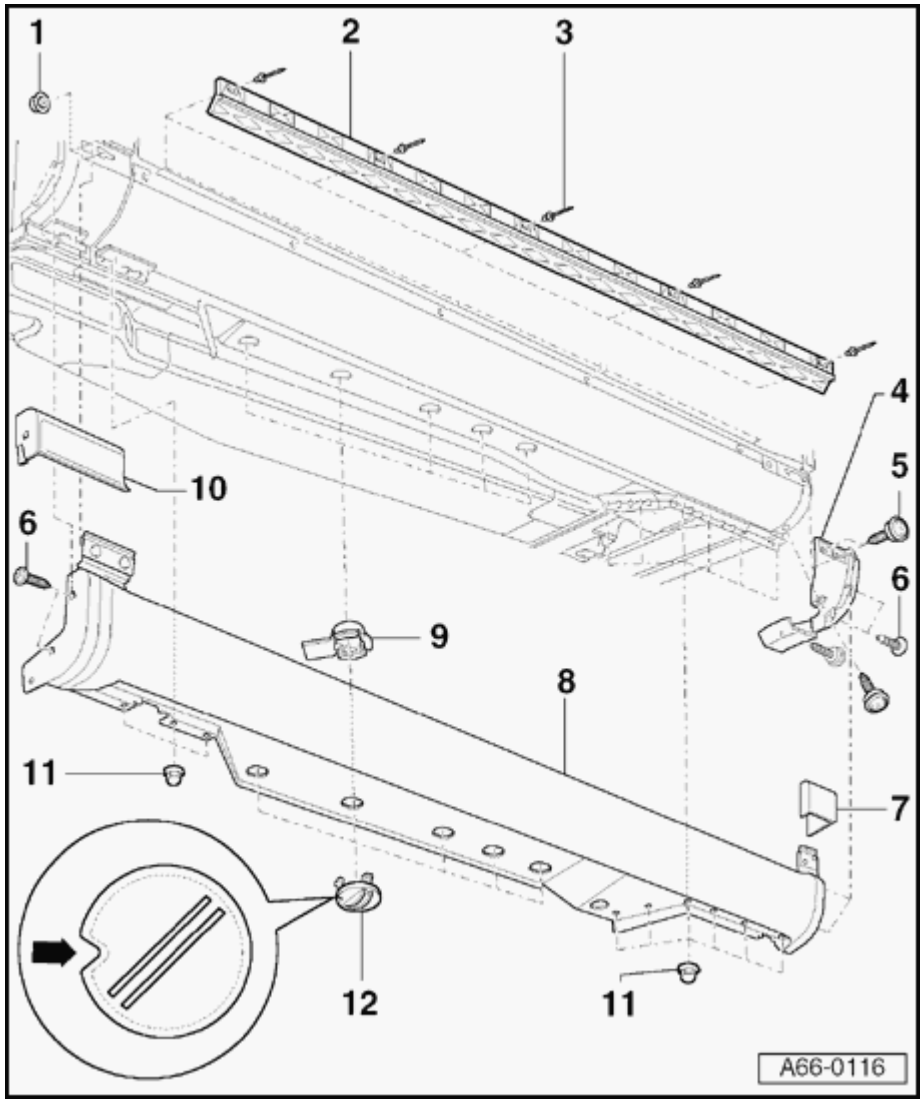
1 - Hex nut

- 1 Nm

2 - Retaining strip

- Adhesive surfaces must be free of dust and grease before pressing on retaining strip.
- Self-adhesive, remove protective foil just prior to assembly.
  - Use hot air gun to warm retaining strip to approx. 40 ° C (max 50 ° C) before assembly.
  - Center retaining strip using one hollow rivet at the front and one at the rear.
  - Press complete surface of retaining strip securely into adhesive areas at sill.
  - Rivet retaining strip to sill, starting at front and moving toward rear.

66-23



3 - Hollow rivet

- 5x.

4 - Bracket

5 - Collar screw

- 1.5 Nm.

6 - Phillips-head screw

- 1.5 Nm.

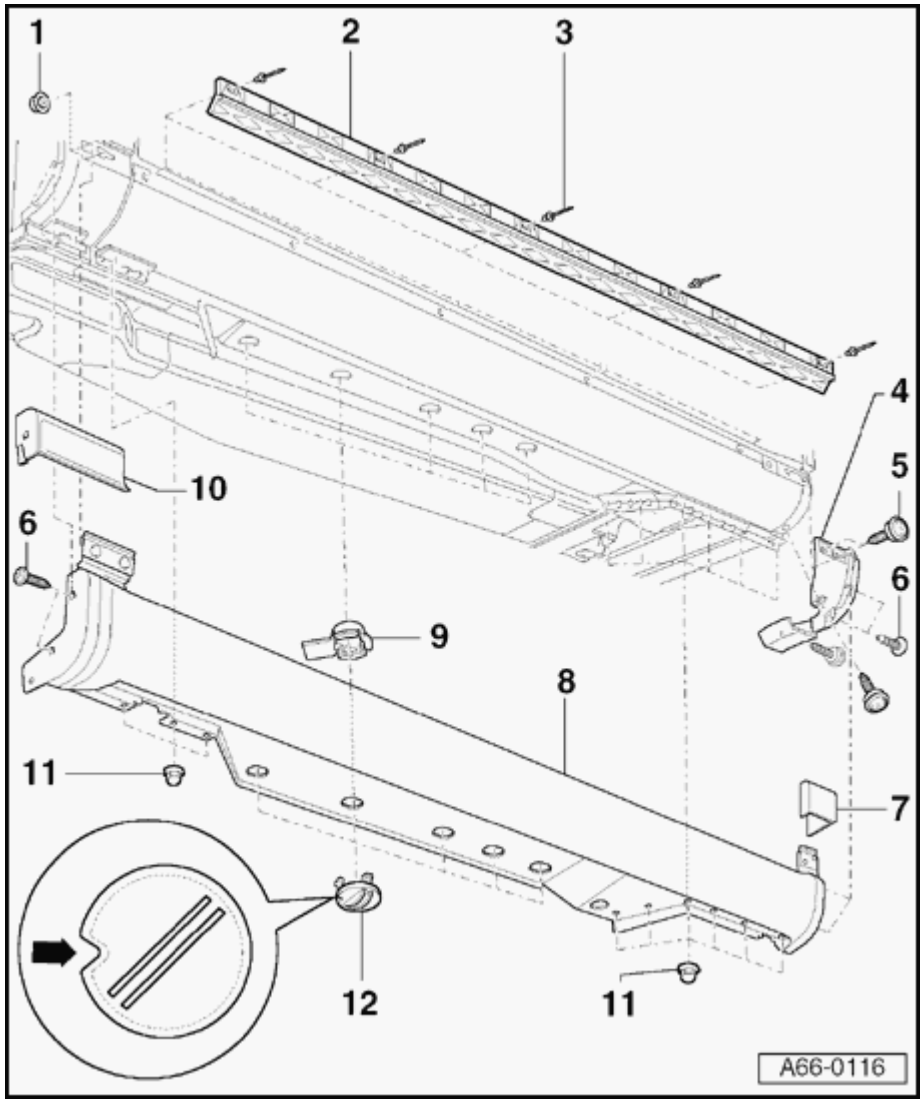
7 - Rear trim piece

- Removing ⇒ Fig. 2 .

8 - Rocker panel cover for sill

- Before removing, remove rear trim piece -7- ⇒ Fig. 2 .
- Remove front end piece -10-.
  - Remove Phillips-head screws -6- at front and rear.
  - Disengage twist locks -12- and remove.
  - Remove cap nuts -11-.

66-24

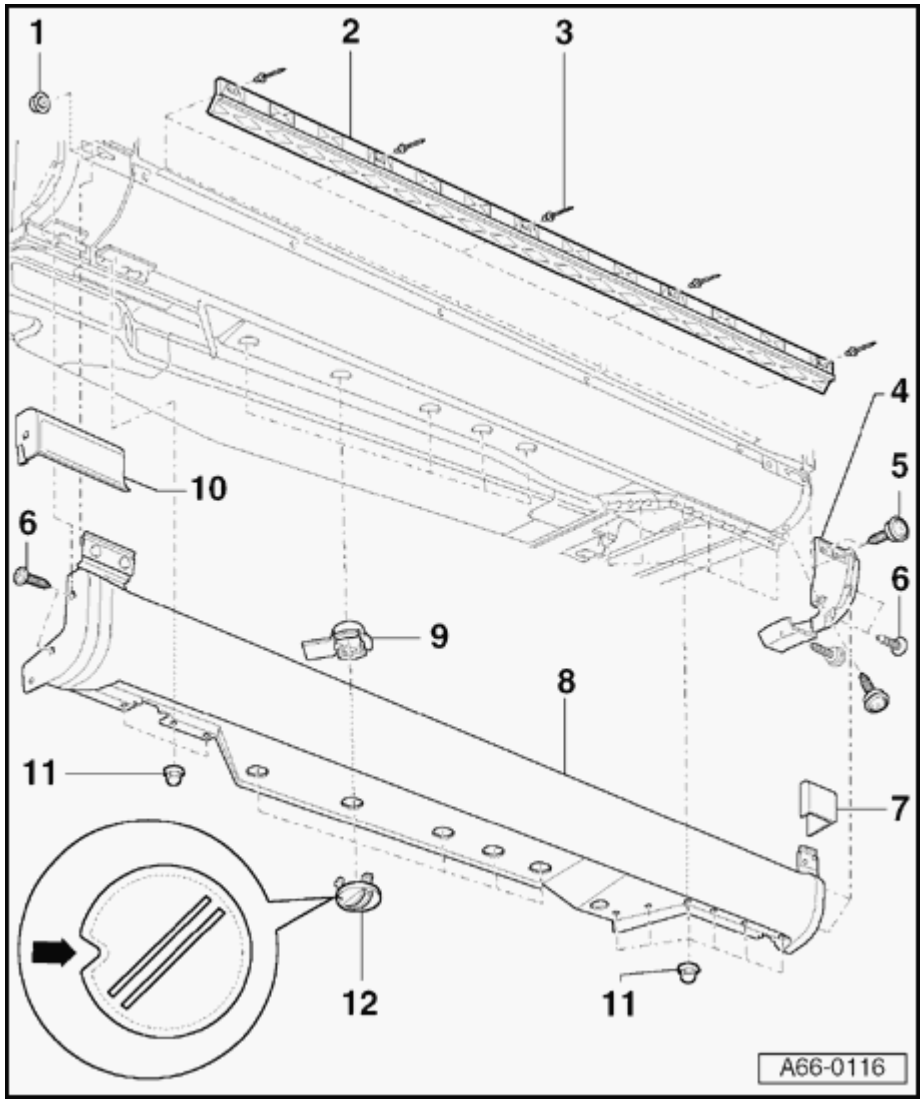


- Remove bolts for securing wheelhousing liner near hex nuts -1-.
- Press wheelhousing liner to side and remove hex nuts -1-.
- Bolts for securing the EVAP canister must also be removed on right-hand side.
- Pull rocker arm cover slightly forward out of bracket -4- and remove from sill.

9 - Mount for twist lock

- ♦ Tab on mount must face vehicle interior.

66-25



10 - Front end piece

- Removing ⇒ Fig. 1 .

11 - Cap nut

- 1.5 Nm.

12 - Twist lock

- Notch (arrow) must face front of vehicle.

66-26

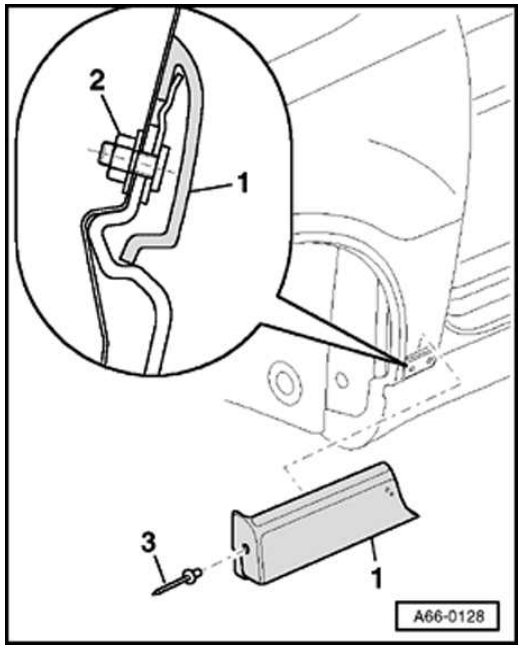


Fig. 1 Removing and installing front end piece

- Remove front wheel.
- Drill rivet heads off hollow rivets -3- an knock rivet shaft through.
- Remove wheelhousing liner bolts around front end piece.
- Press wheelhousing liner to side and remove hex nut -2-.
- Remove front end piece -1- from fender toward side.

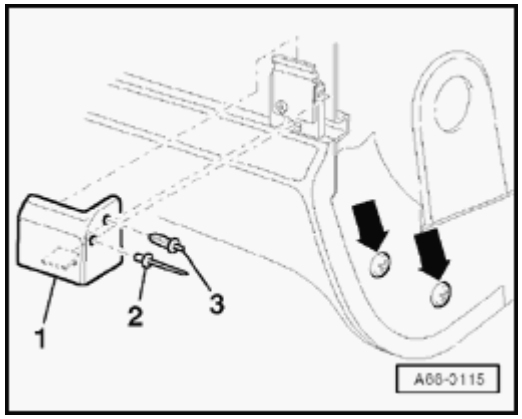
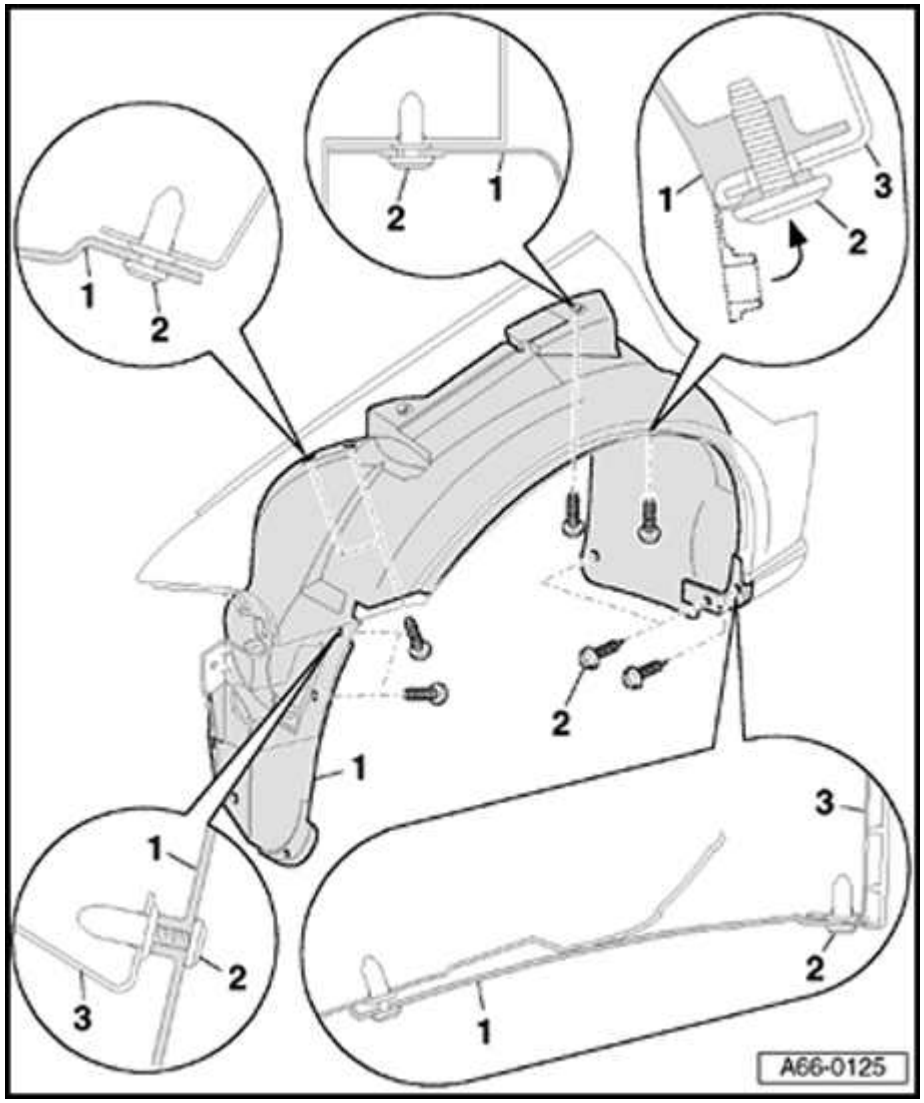


Fig. 2 Removing and installing rear trim piece

- Drill rivet head off hollow rivet -2- an knock rivet shaft through.
- Push pin through expanding clip and remove expanding clip from trim piece.
- Pin is required when reinstalling expanding clip.
- Pull trim piece up and out of bracket first and then remove.
- For further removal of rocker panel cover, remove Phillips-head screws (arrows).

66-31



Front wheelhousing liner, removing and installing

1 - Front wheelhousing liner

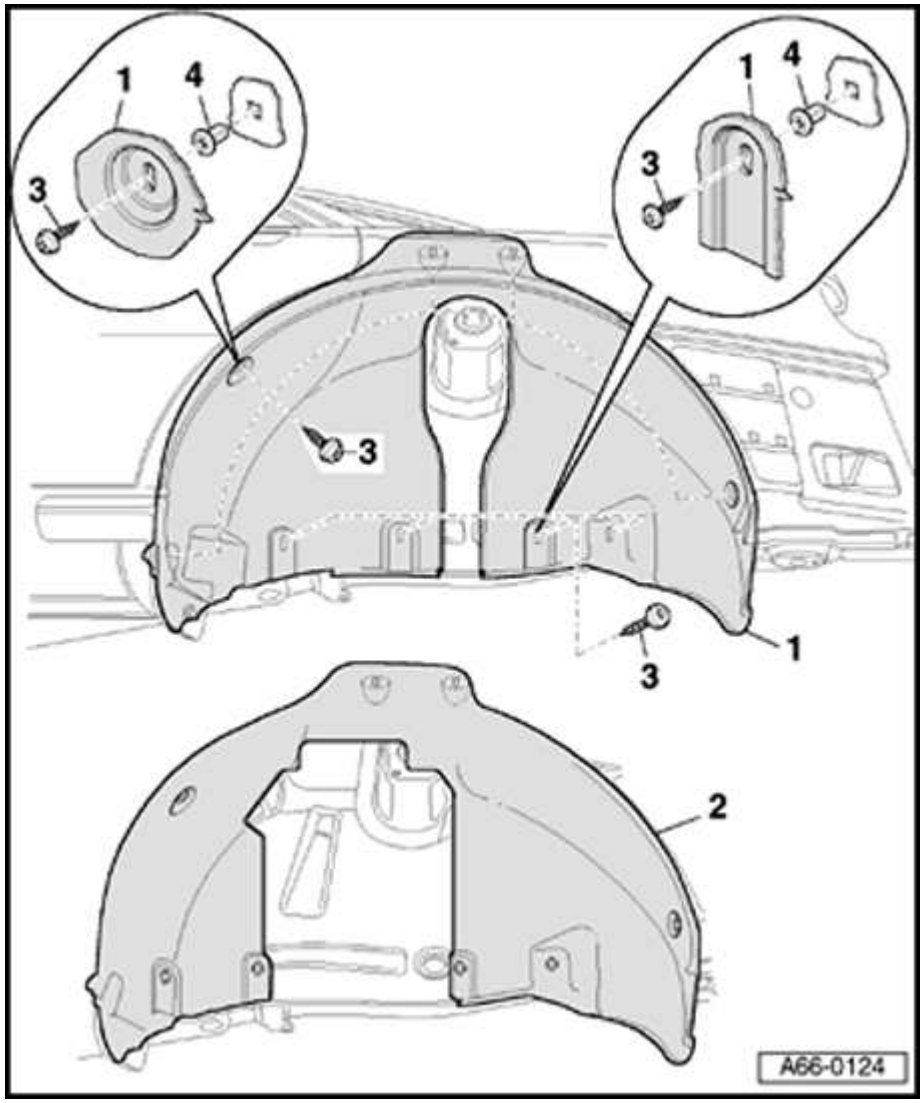
- Front wheel removed.
  - To remove, remove bolts -2- (10x) and remove wheelhousing liner below fender.
  - When installing, press plastic tabs (dotted line in illustration) in direction of arrow into the holes on fender and then install Phillips-head screws.

2 - Phillips-head screws

- 2.5 Nm

3 - Fender

66-32



Rear wheelhousing liner, removing and installing

1 - Rear wheelhousing liner (Front Wheel Drive vehicles)

- Rear wheel removed.
  - Remove Phillips-head screws -3- at top (5x) and bottom (4x).
  - Remove wheelhousing liner from side panel above suspension strut mount.

2 - Rear wheelhousing liner (Quattro)

- Removing and installing same as for Front Wheel Drive.

3 - Phillips-head screw

- 2.5 Nm

4 - Clip

69-1

Seat belts

Safety precautions for handling pyrotechnic seat belt tensioners

WARNING!

- ***Testing, removing, installing and repair work must only be carried out by properly qualified personnel.***
- ***When connecting the seat belt tensioner unit, all mechanical components (including those of the three-point seat belt) must be properly attached.***
- ***Only the technician carrying out the work may be present inside the vehicle.***
- ***The seat belt tensioner components cannot be opened or repaired; always use new components.***
- ***Seat belt tensioner units which have been dropped from a height of more than 20 inches must not be installed in a vehicle.***
- ***Seat belt tensioner units which are mechanically damaged (dents, cracks) must always be replaced.***

- ***The seat belt tensioner unit should not be removed from its packaging until just before it is to be installed.***
- ***If the installation work is interrupted, return the seat belt tensioner unit to its packaging.***
- ***Never point the open end of a seat belt tensioner at another person.***

69-2

WARNING!

- ***Always wash your hands after handling seat belt tensioners which have been triggered.***
- ***Observe all transportation regulations for explosive substances.***
- ***Do not leave an uninstalled seat belt tensioner unit unattended.***
- ***Seat belt tensioner units must not be treated with grease, cleaners or similar substances.***
- ***Seat belt tensioner units must not be exposed to temperatures above 100° C (212° F), even for short periods.***

69-3

Pyrotechnic seat belt tensioners, disposal

WARNING!

- ***Improper disposal of pyrotechnic seat belt tensioner units (gas generators) which have not been triggered creates a hazard.***
- ***Pyrotechnic seat belt tensioner units (gas generators) must be rendered inoperable before disposing because pyrotechnic devices can cause injury if disposed of improperly (e.g. using a blow torch).***
- ***Seat belts which need to be removed (e.g. after an accident in which the seat belt tensioner was not activated) must be triggered before removal.***
- ***This does not apply to seat belts with malfunctions (e.g. sticking or failure to retract) which must be returned to the Warranty Parts Test Center for analysis.***
- ***Observe all transportation regulations for explosive substances.***
- ***Procedure for rear belt tensioners is***

analogous to front (shelf, remove trim on side of trim or remove 2/3 of backrest cover).

69-4

Procedure for triggering pyrotechnic belt tensioners

Notes:

- *Whenever possible, pyrotechnic belt tensioners must be deployed outside the vehicle. Use Airbag and Pyrotechnic Deployment Device J-44210 and follow instructions in booklet.*
- *The procedure that follows is for deployment of tensioners mounted inside a vehicle.*

- Remove upper B-pillar trim ⇒ page 70-75 .
- Remove lower B-pillar trim ⇒ page 70-75 .
- Remove outer seat belt anchor ⇒ page 69-13 .
- Using scissors, cut belt webbing above seat belt tongue (about 20 cm above belt retractor).
- Disconnect harness connector from belt retractor and connect wiring harness (Part No. 8D1 971 259) to belt tensioner.
- Cut harness connector at opposite end, insulate

both ends of cable, pull cable housing apart until ends of cable are at least 30 cm apart.

- Vehicle must not be occupied

- Open windows and close doors.

- Using wiring harness and an external battery (located outside vehicle), activate gas generator (maintain minimum 10 m distance).

69-5

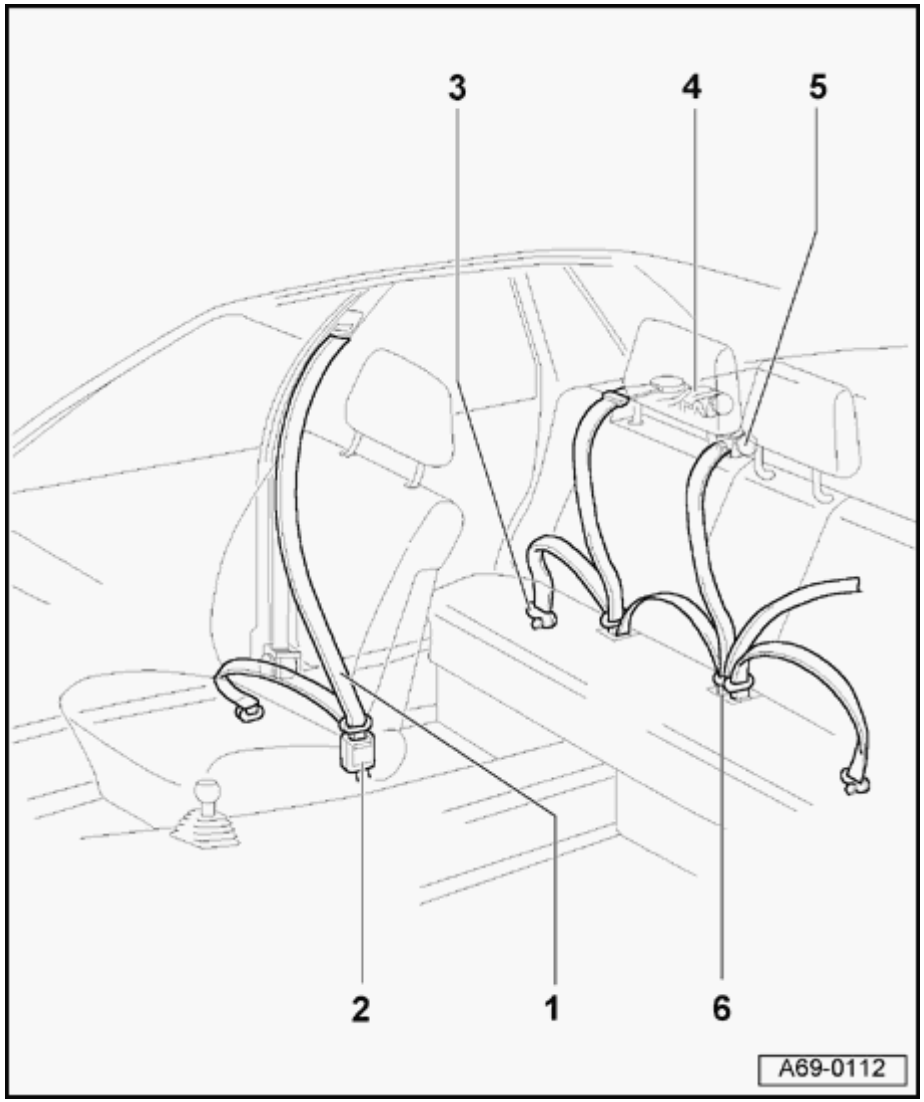
- Air out vehicle after triggering.

- After removal, the belts can be disposed of as commercial waste.

- Wash your hands after handling belt tensioners that have fired.

- Follow safety and handling instructions for pyrotechnic belt tensioners.

69-6



Seat belt attachment points, overview

1 - Three-point seat belt with seat belt height adjuster and belt tensioner

- Removing ⇒ page 69-7

2 - Buckle attachment point

- Removing ⇒ page 69-12

3 - Attachment point for outer floor assembly

- Removing ⇒ page 69-13

4 - Left and right-rear three-point seat belt

Sedan:

- Removing ⇒ page 69-15

Avant:

- Removing ⇒ page 69-18

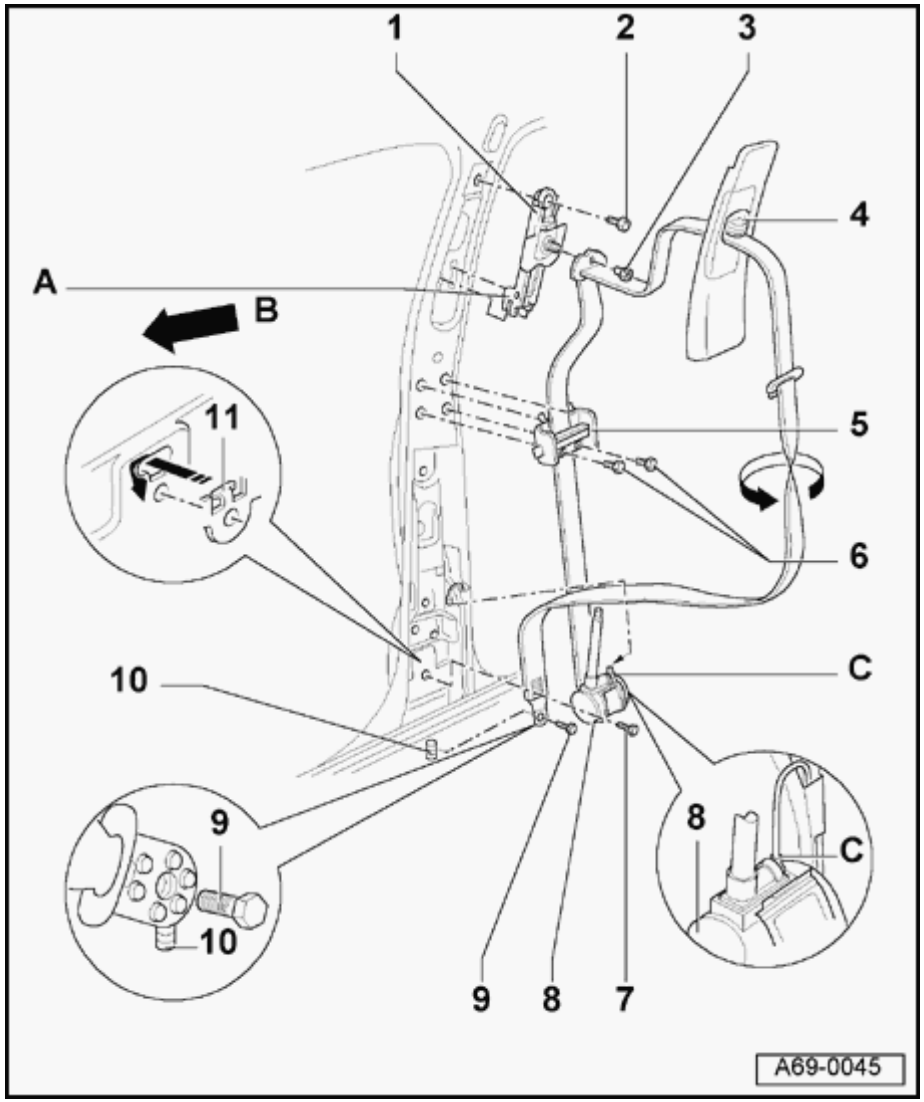
5 - Rear center three-point seat belt

- Floor rear backrest
- Removing ⇒ page ⇒ Page 69-22

6 - Attachment point for center floor assembly

- Removing ⇒ page 69-25

69-7



Three-point seat belt with seat belt height adjuster and belt tensioner, removing and installing

1 - Seat belt height adjuster

Removing:

- Remove upper B-pillar trim ⇒ page 70-75 .
- Remove shouldered nut -3- and bolt -2-.
- Remove seat belt height adjuster -1- up and out of position -A-.

Installing:

- Guide seat belt height adjuster switch -4- into height adjuster assembly -1-.

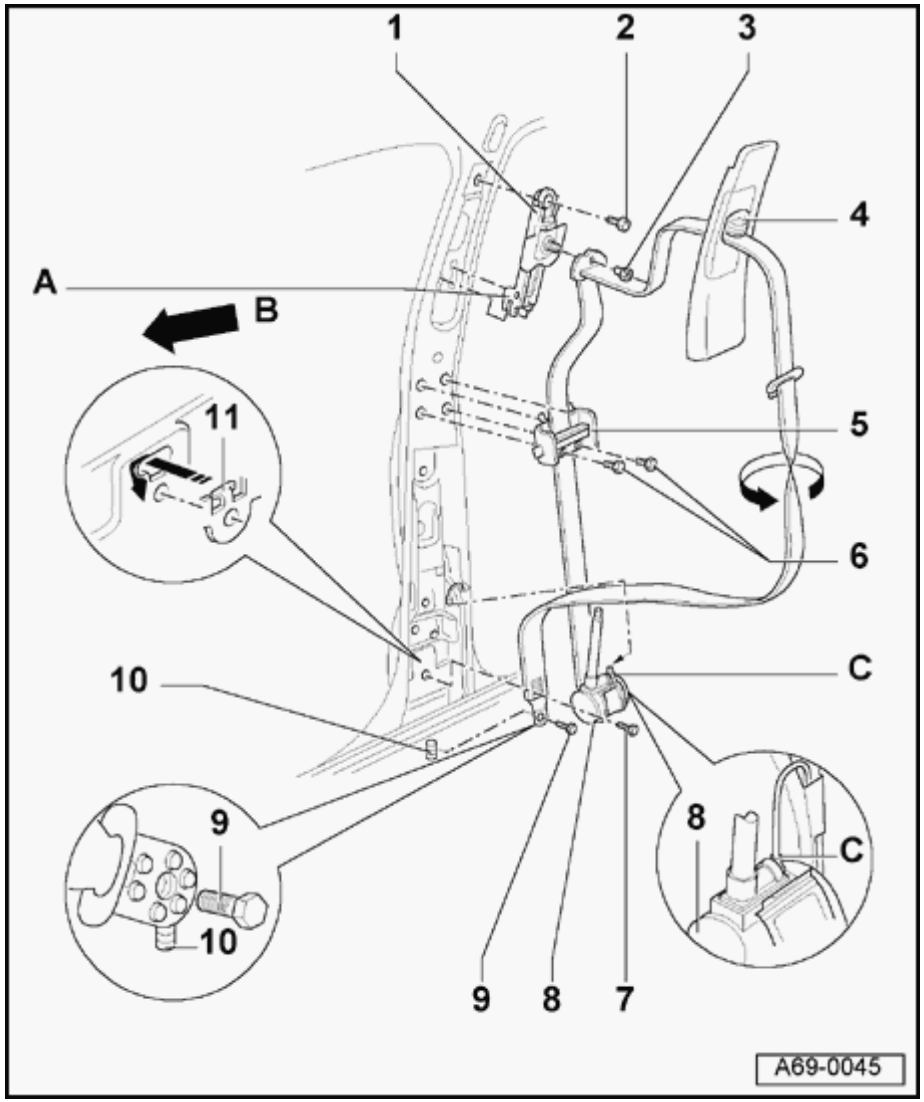
Notes:

- *Do not press switch -4- when installing.*

Function check after installing trim:

- *Height adjuster must audibly engage into all five of the possible positions (even in the top position).*
- *Switch must return by itself to upper position after being actuated.*

69-8



2 - Bolt

- 23 Nm (17 ft lb)

3 - Shouldered nut

- 50 Nm (37 ft lb)

4 - Switch for height adjustment

5 - Belt guide

- Remove bolts -7- (2x).

- Unclip lower part of belt guide, swing upward and detach

6 - Bolts (2x)

- 2 Nm (18 in. lb)

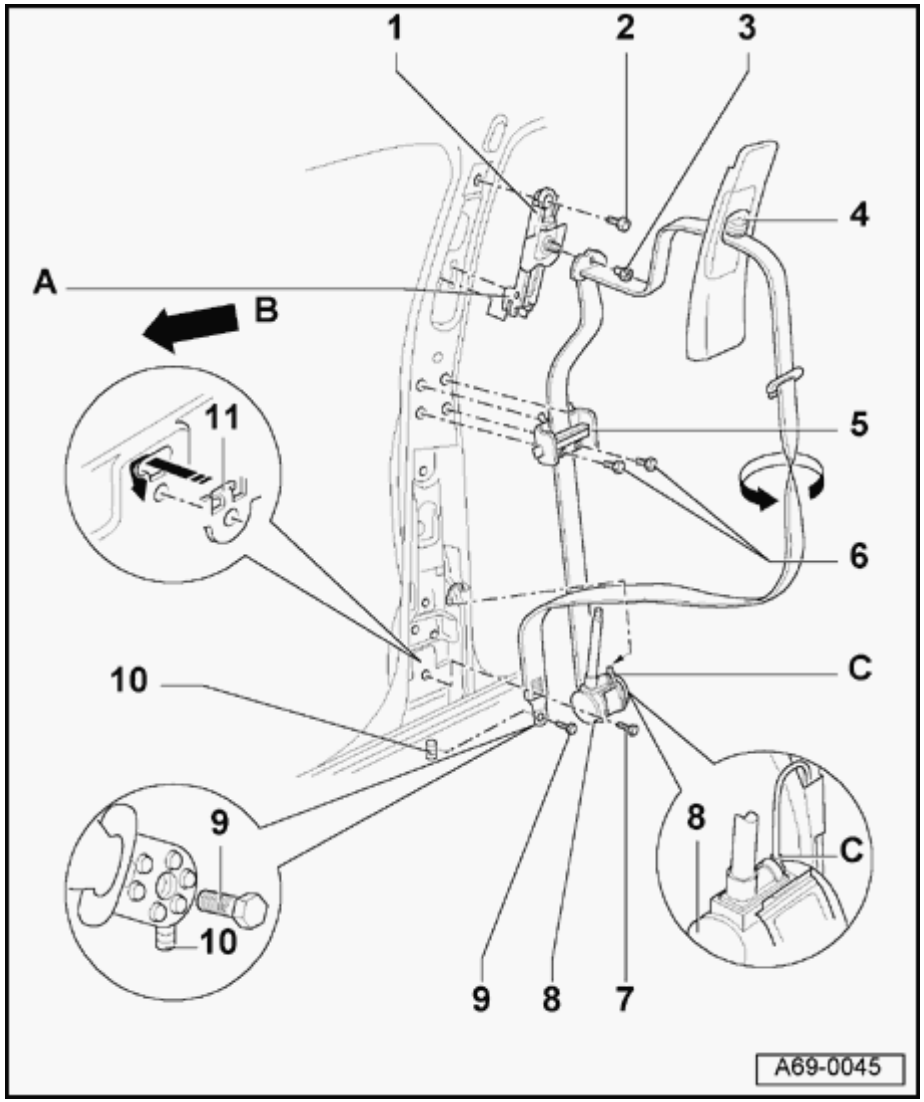
7 - Bolt

- 50 Nm (37 ft lb)

8 - Bolt

- 50 Nm (37 ft lb)

69-9



9 - Belt tensioner

Removing three-point seat belt:

- Disconnect battery.
- Removing sill molding ⇒ page 70-80 .
- Remove bolt -9- (1x).
- Remove upper B-pillar trim ⇒ page 70-75 .
- Remove belt webbing from upper B-pillar trim.
- Remove lower B-pillar trim ⇒ page 70-75 .
- Remove shouldered nuts -3-.
- Disconnect harness connector -C- at belt tensioner.
- Remove bolt -7-.
- Remove belt tensioner -9- upward out of anti-twist stop -11-.

Installing three-point seat belt:

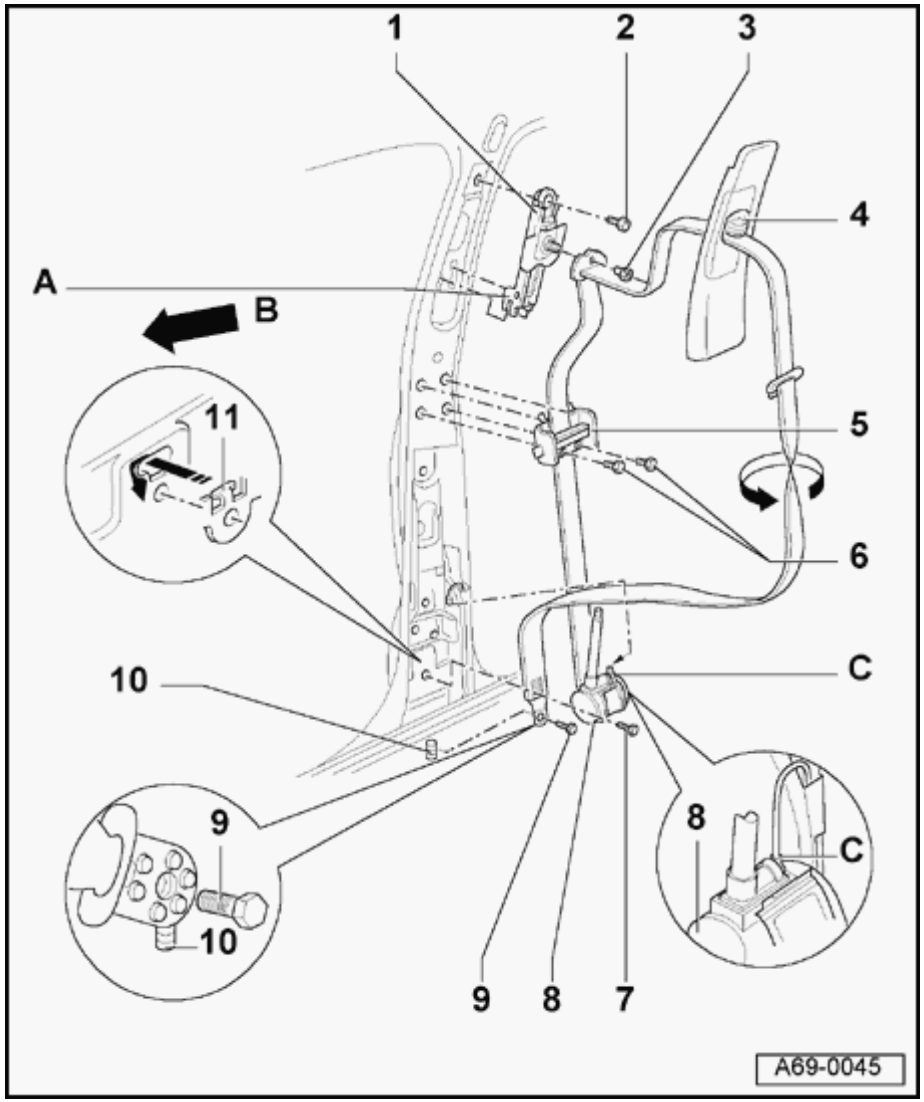
Note:

Arrow -B- indicates direction of travel.

- Install belt tensioner -9- with anti-twist stop -11- as shown in magnified area.

- Install belt webbing (turned 180°) as shown in illustration (arrow).

69-10



- Lower belt webbing must be bolted to metal stud -10- as shown in magnified area
- Remainder of installation is reverse of removal

  - After installing passenger side three-point seat belt, check belt function for child seat ⇒ page 69-37 .

- Three-point seat belt must not be hindered by cables, wires or dampening material etc

10 - Metal stud in floor pan

- Anti-twist stop for belt webbing bracket

11 - Anti-twist stop and reverse-mounting protection for three-point safety belt

69-11

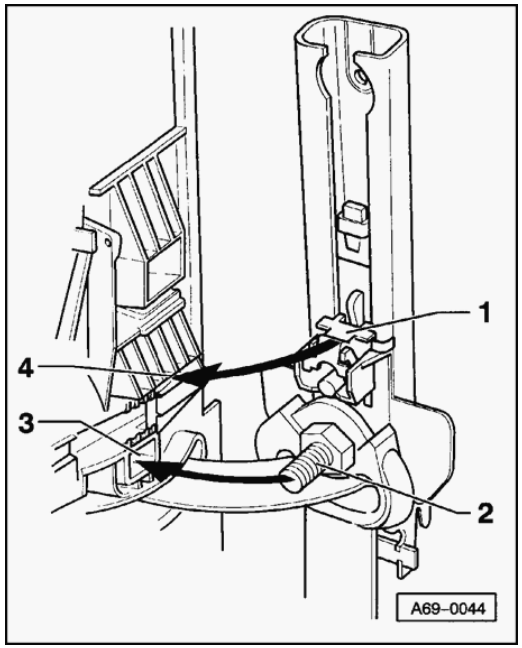
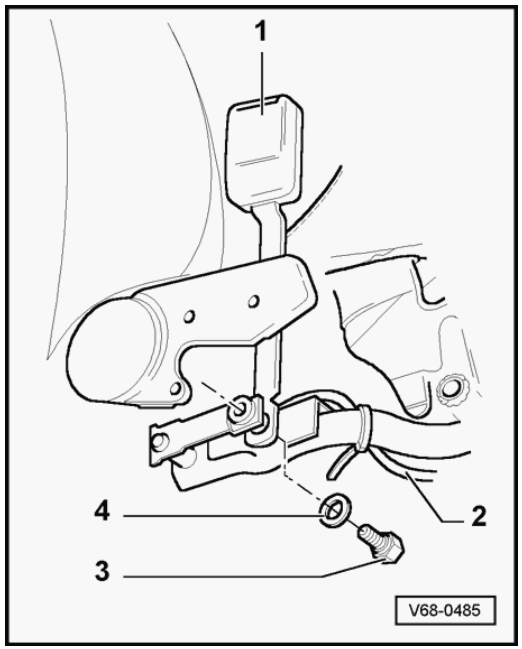


Fig. 1 Installing upper B-pillar trim in belt height adjuster

- Guide slide with button -4- (without pressing) beginning at top and working downward into release lever -1- of height adjuster while simultaneously installing pin -2- into mounting -3-.

69-12

Belt buckle attachment point



- Remove seat ⇒ page 72-2 .

1 - Buckle

4 - Spring washer

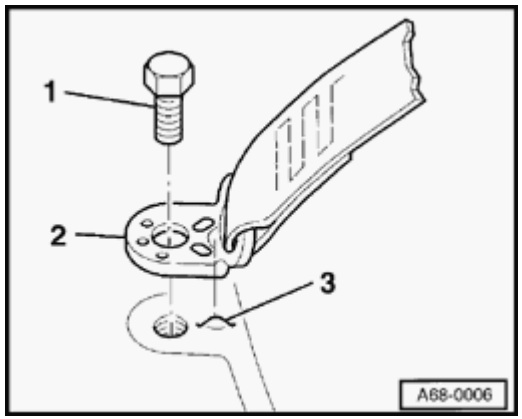
- Remove bolt -3-.

  Tightening torque: 60 Nm (44 ft lb)

- If necessary, disconnect harness connector -2- for belt warning.

69-13

Outer floor assembly attachment point



- Remove bolt -1-.

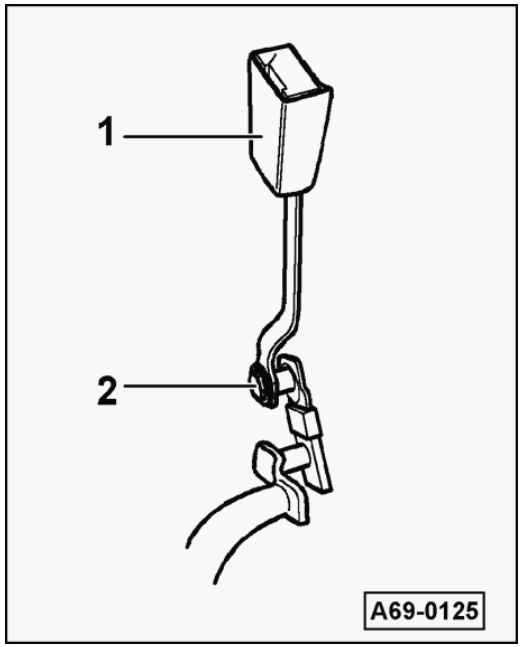
  Tightening torque: 50 Nm (37 ft lb)

Mounting bracket -2- must be located in impression -3- of floor assembly.

69-14

Recaro seat buckle, removing and installing

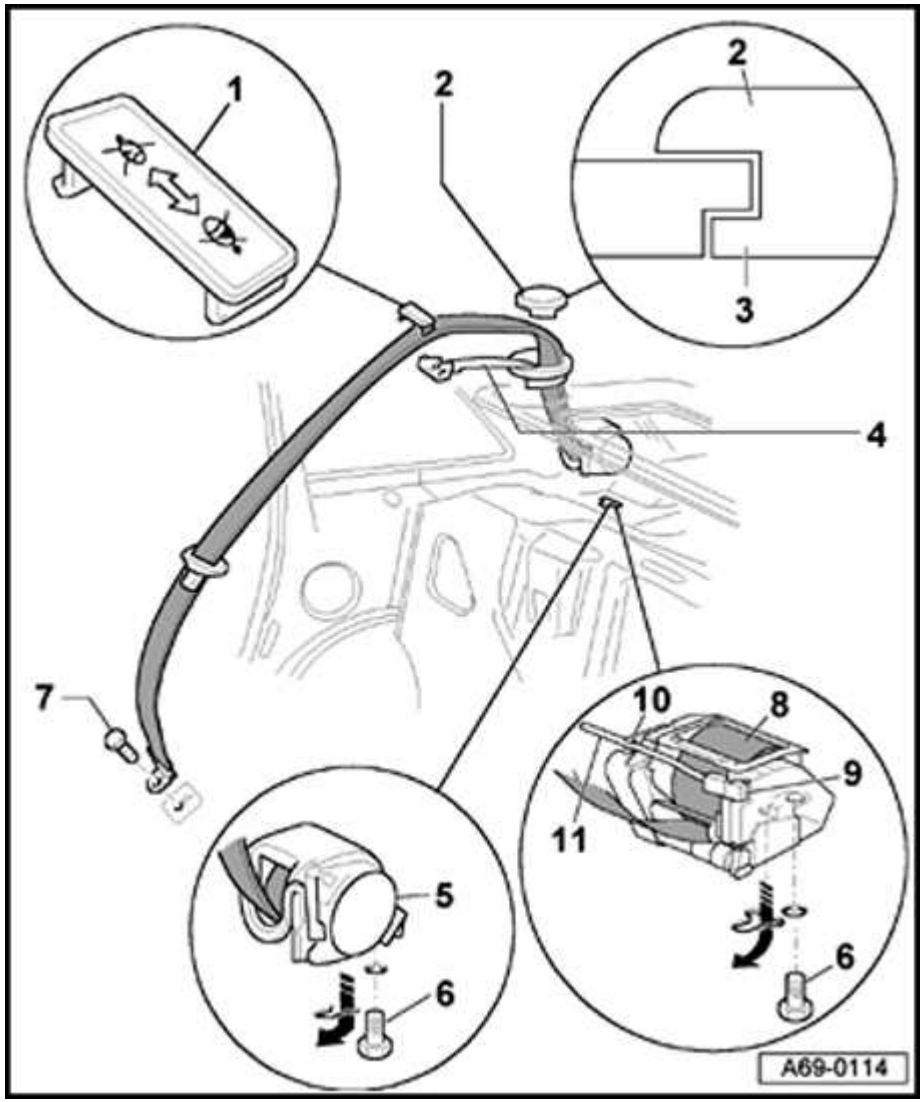
- Remove seat ⇒ page 72-25 .



- Turn buckle -1- downward to allow access to bolt -2-.
- Remove bolt -2-.

  Tightening torque: 60 Nm (44 ft lb)

69-15



Left and right-rear three-point seat belts, removing and installing

Sedan

1 - Belt guide trim

- ♦ Large symbol must always point toward vehicle center

2 - Belt adjuster cover

3 - Retaining tab

4 - Belt adjuster

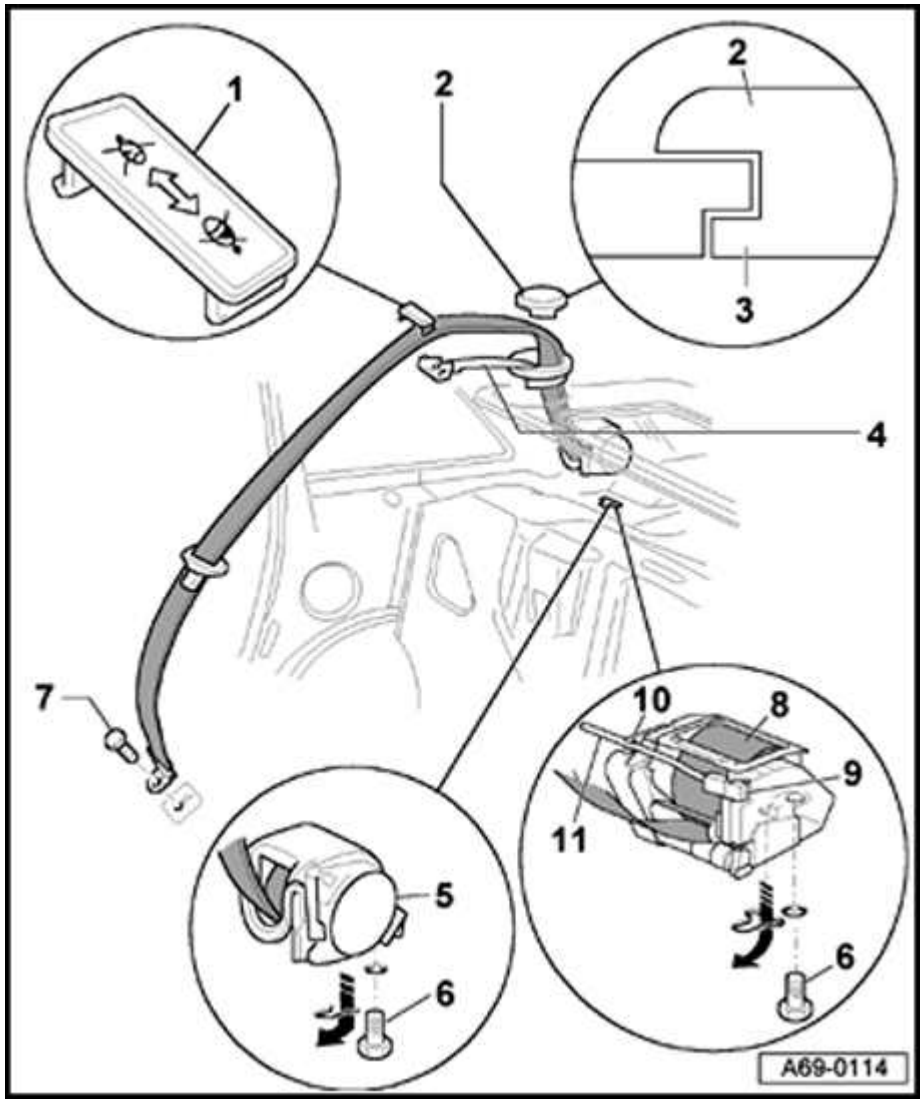
- ♦ Removing and installing ⇒ page 69-20

5 - Three-point seat belt

Removing:

- Remove rear seat ⇒ page 72-57 .
- Remove bolt -7-.
- Unclip belt guide trim -1-.
- Detach belt adjuster cover -2- at left and right of retaining tab -3-.
- Remove rear shelf ⇒ page 70-83 .
- Open cover for side trunk trim.

69-16



Vehicles with CD player and/or subwoofer or similar:

- Remove side trunk trim ⇒ page 70-87 .

Vehicles with belt tensioners:

- Unclip igniter wire -11- at clip -10-.
- Detach harness connector for igniter wire at clip -9-.
- Remove bolt -6- (1x).
- Detach seat belt against direction of arrow.

Installing:

♦ Make sure harness connector for igniter wire -11- engages

- Clip igniter wire -11- into clip -10-.

Note:

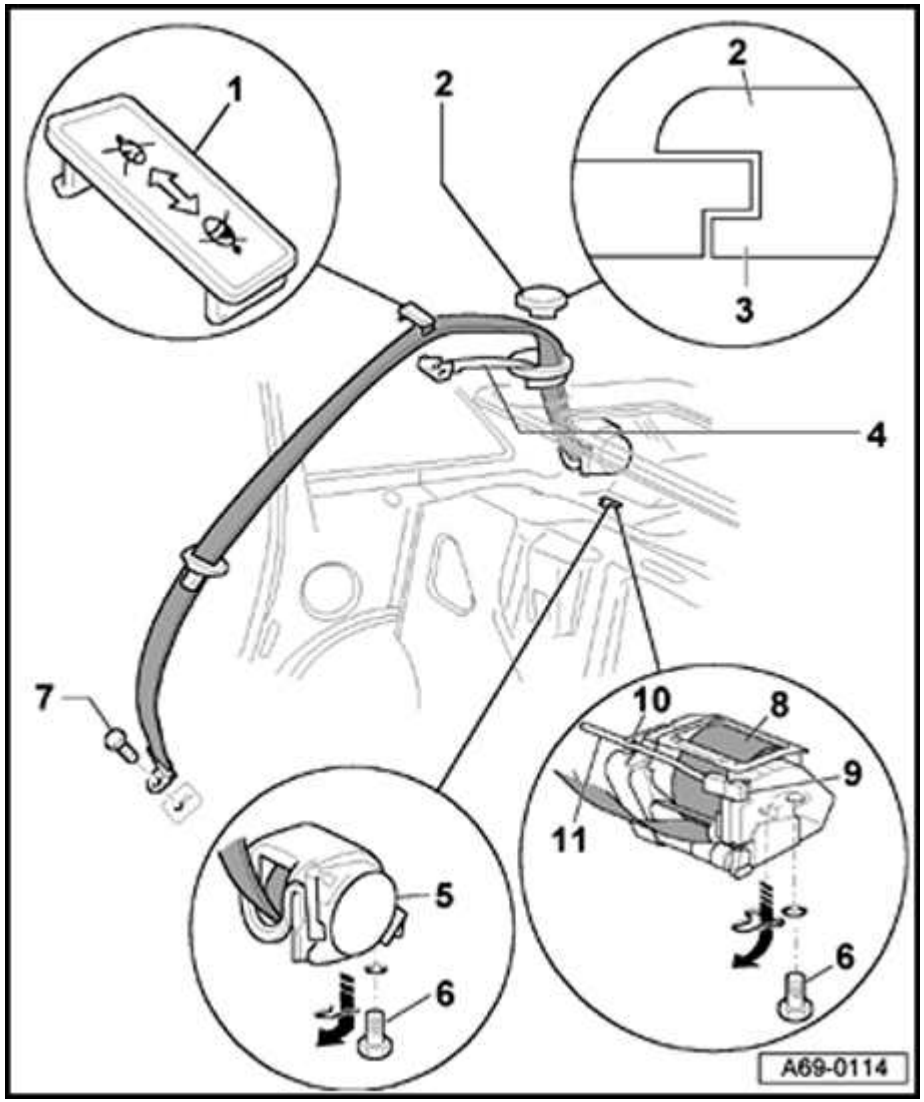
The igniter wire -11- must not be located near the belt webbing.

♦ For vehicles with belt tensioner, check belt-fastened sensor ⇒ page 69-38

♦ After installing rear three-point seat belt, check belt function for child seat ⇒ page 69-37

- Three-point seat belt must not be hindered by cables, wires or dampening material, etc

69-17



6 - Bolt

- ♦ 50 Nm (37 ft lb)

7 - Bolt

- ♦ 50 Nm (37 ft lb)

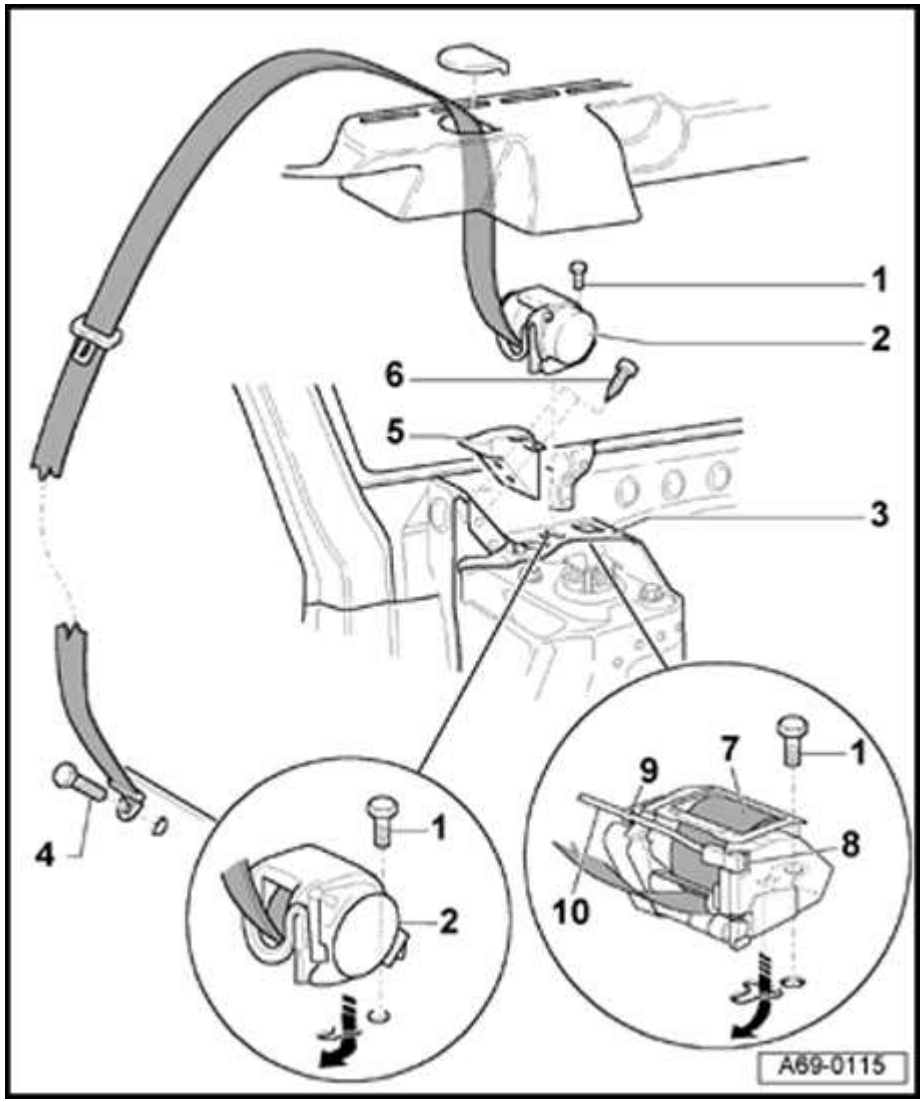
8 - Three-point seat belt with belt tensioner

9 - Clip

10 - Clip

11 - Igniter wire

69-18



Avant

1 - Bolt

- ♦ 50 Nm (37 ft lb)

2 - Belt tensioner

Removing:

- Remove left and right-rear side bolsters ⇒ page 72-75 .
- Remove left and right-side trunk trim ⇒ page 70-87 .
- Remove rear seat ⇒ page 72-57 .
- Remove bolt -4- (1x).

Vehicles with belt tensioners:

- Unclip igniter wire -11- at clip -10-.
- Detach harness connector for igniter wire at clip -8-.
- Remove bolt -1- (1x).
- Detach seat belt against direction of arrow.

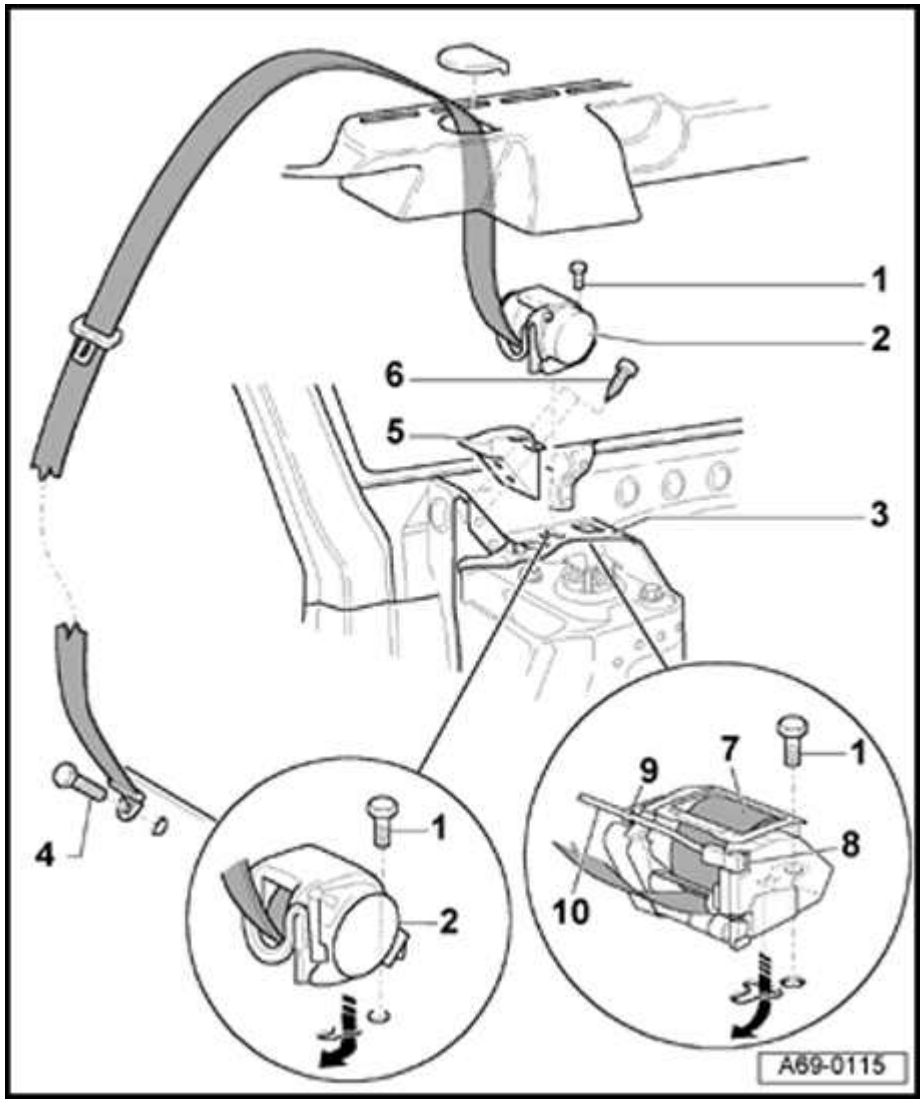
Installing:

- Make sure harness connector for igniter wire -11- engages.
- Clip igniter wire -11- into clip -10-.

Note:

The igniter wire -11- must not be located near the belt webbing.

69-19



- For vehicles with belt tensioner, check belt-fastened sensor ⇒ page 69-38
- After installing rear three-point seat belt, check belt function for child seat ⇒ page 69-37
- The three-point seat belt must not be hindered by cables, wires or dampening material, etc

3 - Bracket

4 - Bolt

- 50 Nm (37 ft lb)

5 - Bracket

6 - Bolt

- 2.5 Nm (22 in. lb)
- It is not necessary to remove metal bracket when removing belt

7 - Three-point seat belt with belt tensioner

8 - Clip

9 - Clip

10 - Igniter wire

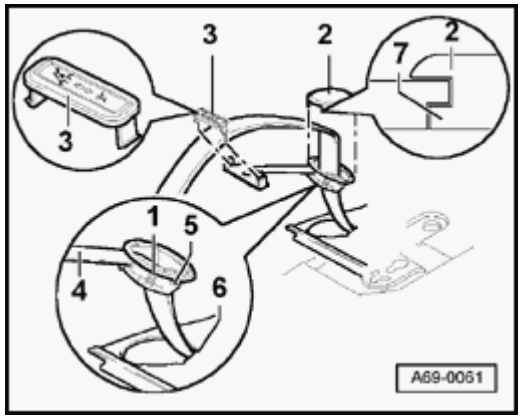
69-20

Rear belt adjuster, removing and installing

Removing

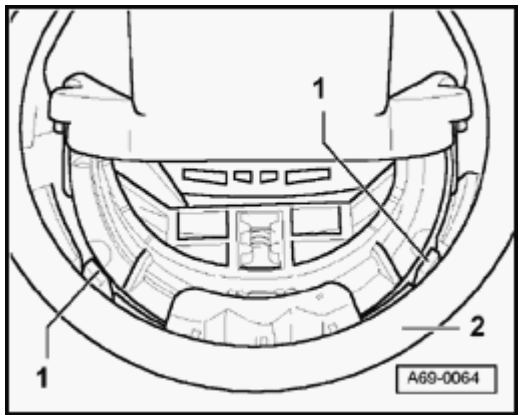
Note:

It is not necessary to remove the rear shelf when removing the rear belt adjuster.



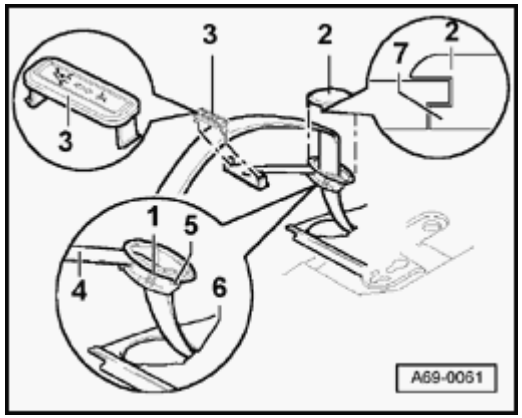
- Undo lower attachment point of rear three-point seat belt.

  Tightening torque: 50 Nm (37 ft lb)
- Unclip belt guide trim -3-.
- Detach belt adjuster cover -2- at left and right of retaining tab -7-.
- Swing belt adjuster -4- with belt webbing upward.



- Use screwdriver to press retaining tab -1- (2x) inward while simultaneously pulling up on belt adjuster -2-.
- Pull belt webbing through belt adjuster -2-.

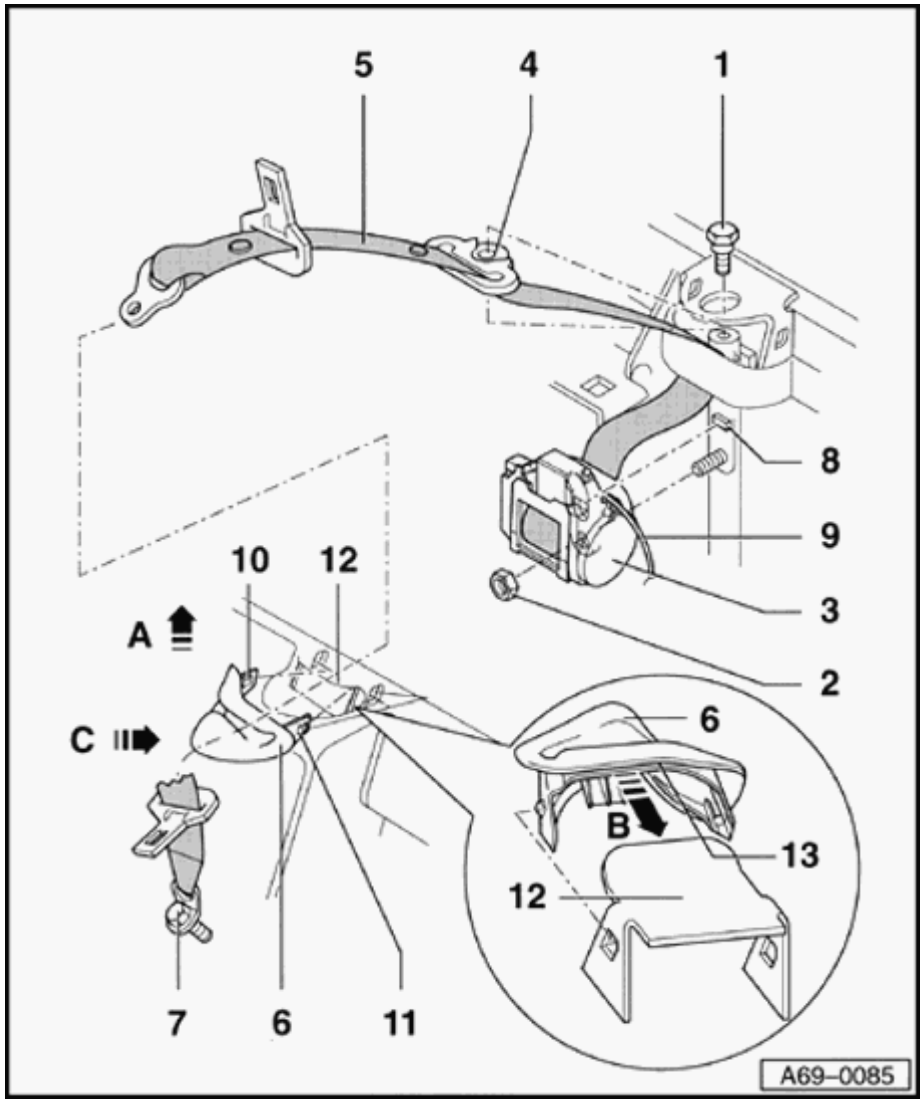
69-21



Installing

- Make sure retaining tabs -1- (2x) fully engage.
- Make sure rear lug engages in notch -6-.
- Reverse mounting protection -5- must point toward center of vehicle.

69-22

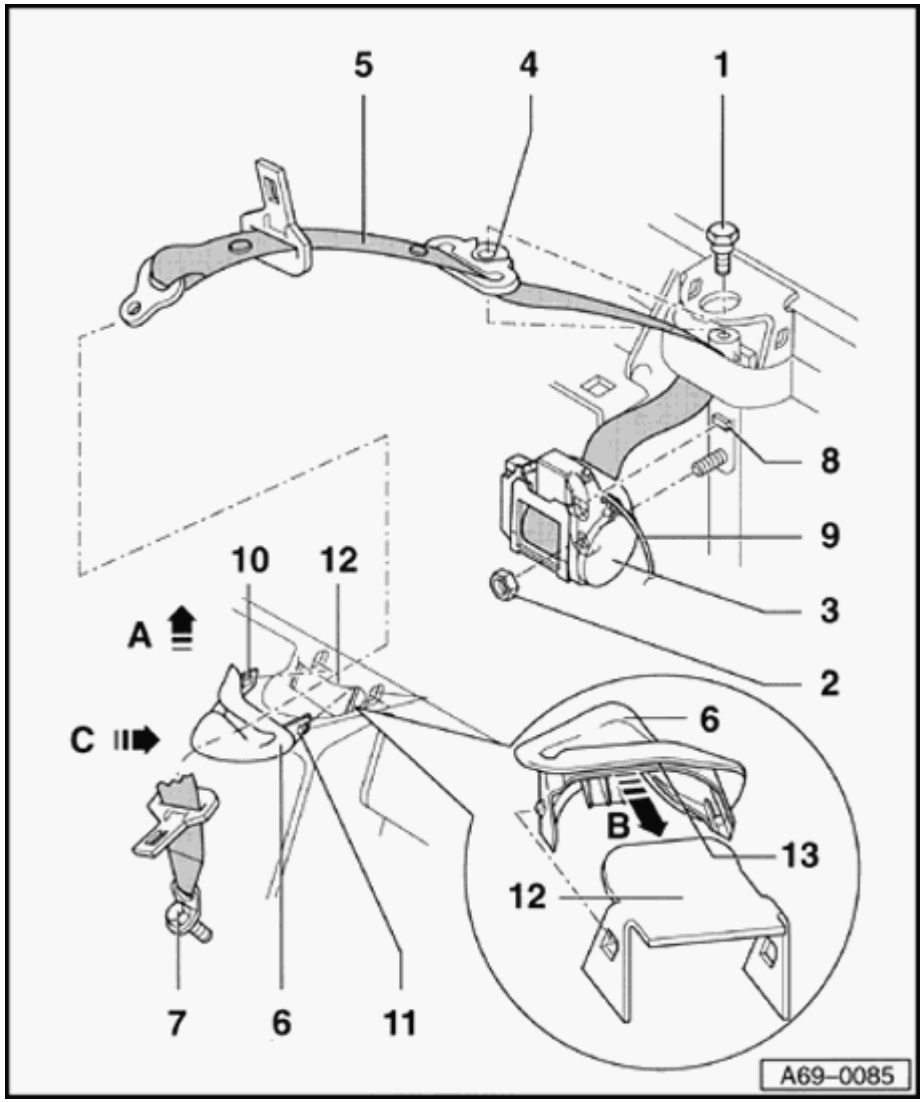


Third rear center three-point seat belt (Avant), removing and installing

Removing

- Remove rear seat ⇒ page 72-57 .
- Remove bolt -7-.
- Remove 2/3 seatback (➢ m.y. 97) ⇒ page 72-62 , (m.y. 98 ➢) ⇒ page 72-64 .
- Push cover at belt guide trim -6- to side, and using screwdriver, detach retaining tab -11-.
- Remove cover -6- in direction of arrow -A-.
- Remove padding of 2/3 rear seatback until cover with padding can be removed ⇒ page 74-37 .
- Remove bolt -1- (1x).
- If necessary, disconnect harness connector at belt tensioner.
- Cut tie wrap off belt tensioner igniter wire at belt tensioner.

69-23



- Remove nut -2- (1x) and third rear three-point seat belt tensioner -3-.

Installing

- To install belt guide trim -6-, first attach retaining tab -10- and insert, then turn retaining tab -11- inward making sure metal piece -12- is inserted into cutout -13- of belt guide trim -6- (arrow -B- in inset).
- Tap lightly on belt guide trim -6- in direction of arrow -C- to engage.

Vehicles with belt tensioner:

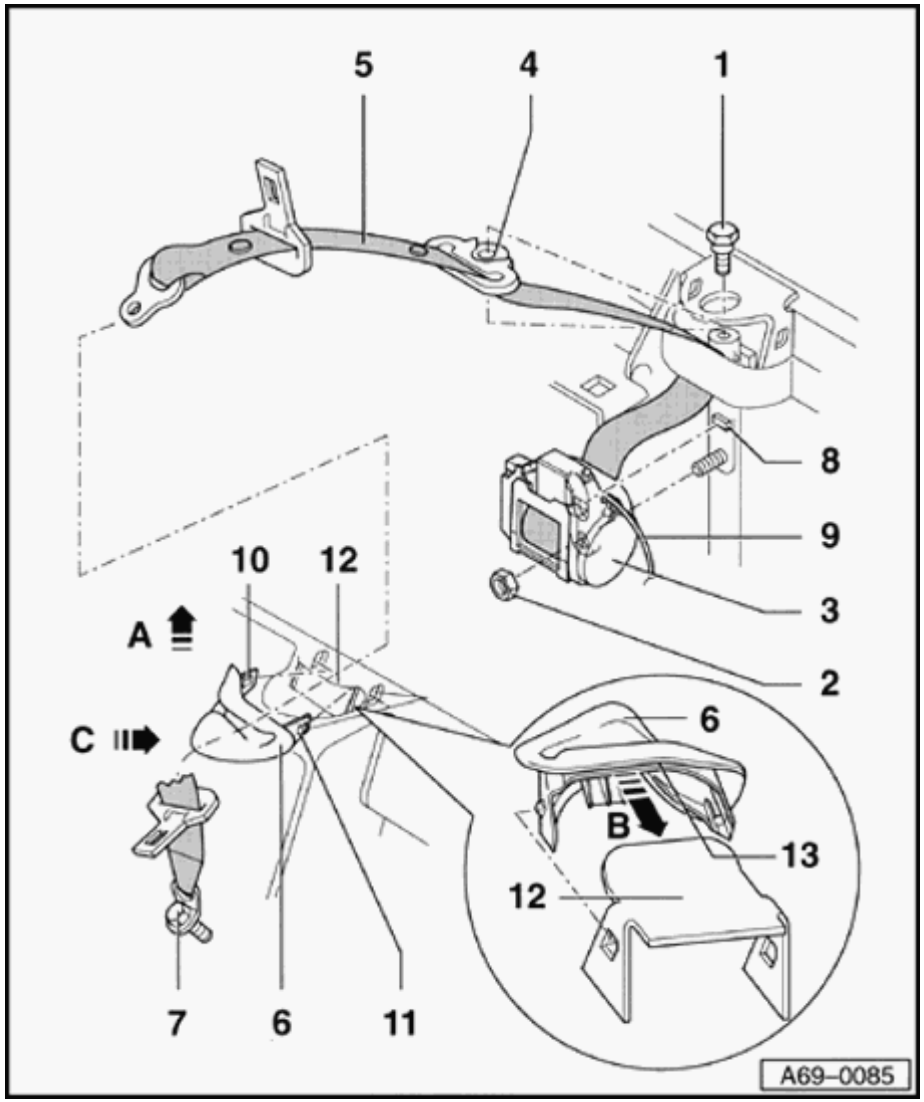
- Check belt-fastened sensor ⇒ page 69-38 .

Notes:

Check the following after full backrest installation:

- *The anti-twist stop -4- and belt webbing -5- must not touch or rub against any foam or cover components.*
- *Anti-twist stop -4- must follow all movements of belt webbing.*
- *Belt webbing -5- must move freely in all directions.*

69-24



1 - Bolt

- ♦ 55 Nm (41 ft lb)

2 - Nut

- ♦ 55 Nm (41 ft lb)

3 - Belt tensioner

4 - Anti-twist stop

5 - Belt webbing

6 - Belt guide trim

7 - Bolt (1x)

8 - Retaining tab

9 - Harness connector for belt tensioner

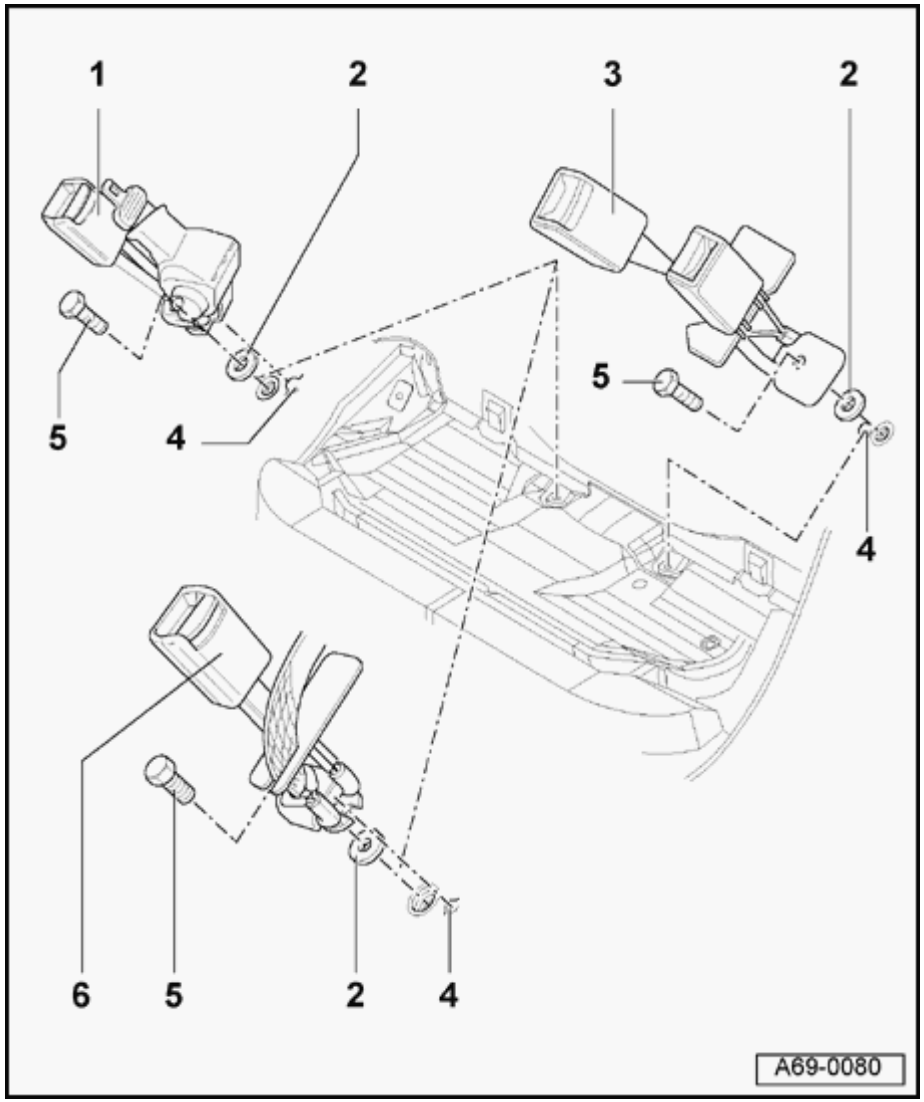
10 - Retaining tab

11 - Retaining tab

12 - Bracket on rear backrest

13 - Cutout

69-25



Center floor panel attachment points

Removing

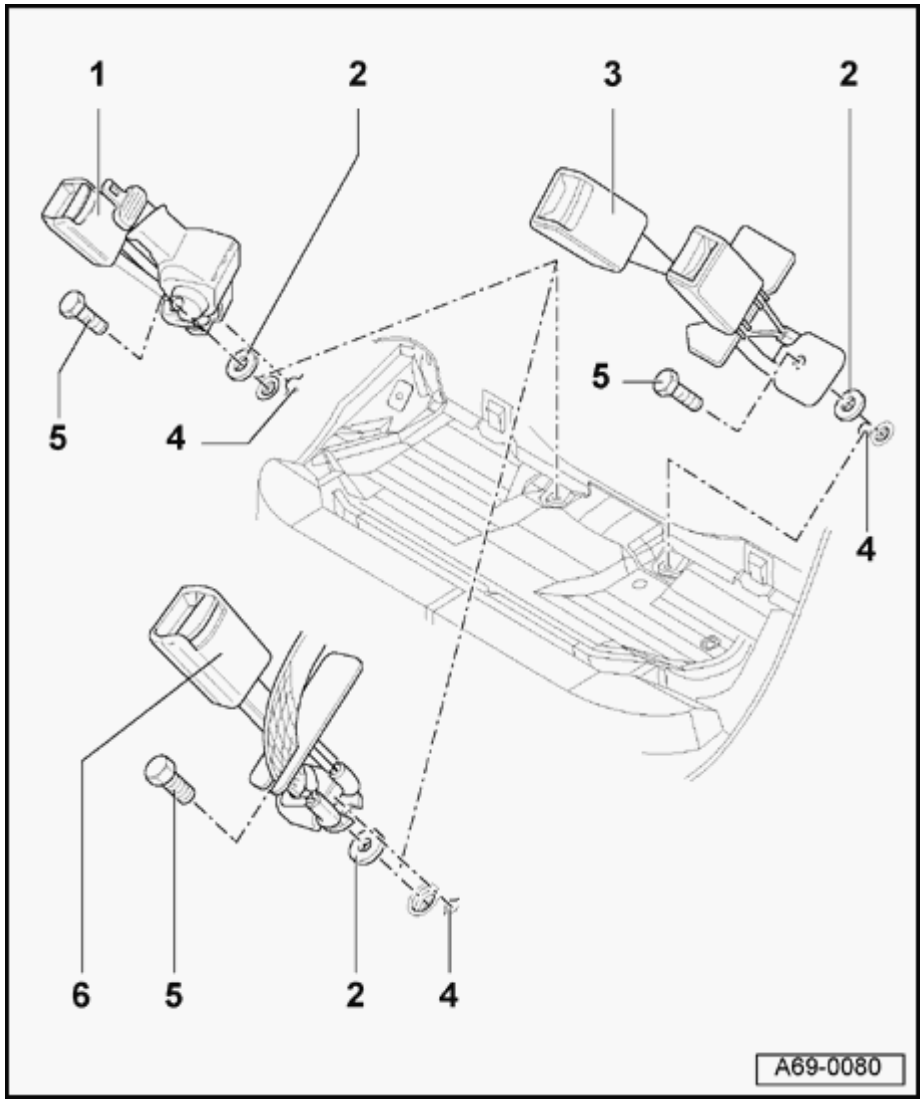
- Remove rear seat ⇒ page 72-57 .
- Remove bolt -5- (1x).

♦ Always change gasket -2-.

♦ When installing, make sure buckle and/or lap belt engages in guide knob -4-.

♦ Narrow side of buckle and/or lap belt must face in direction of travel.

69-26



1 - Lap belt with retractor

Note:

When installing, make sure that bracket is accessible. If necessary, turn lap belt with retractor.

2 - Seal

3 - Buckle

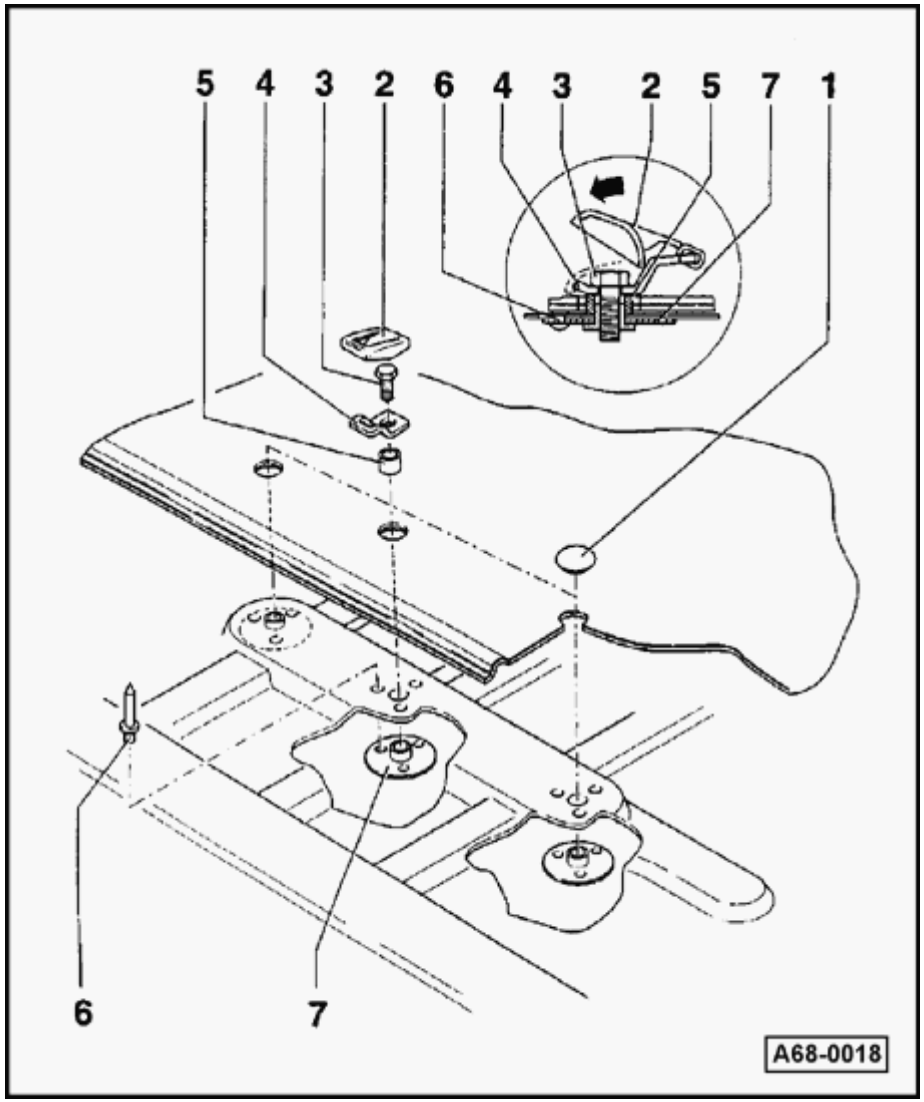
4 - Guide knob

5 - Bolt

- 50 Nm (37 ft lb)
- Only use genuine Audi replacement bolts

6 - Lap belt

69-27



LATCH system, "Lower Anchors and Tethers for CHildren", installing, removing, retrofitting (Sedan)

Rear upper tethers, installing

Note:

Mountings can be installed for three upper tether attachment points.

- Remove rear shelf ⇒ page 70-83 .

1 - Cover

2 - Cap

- To install, attach at front and press in direction of arrow and downward.

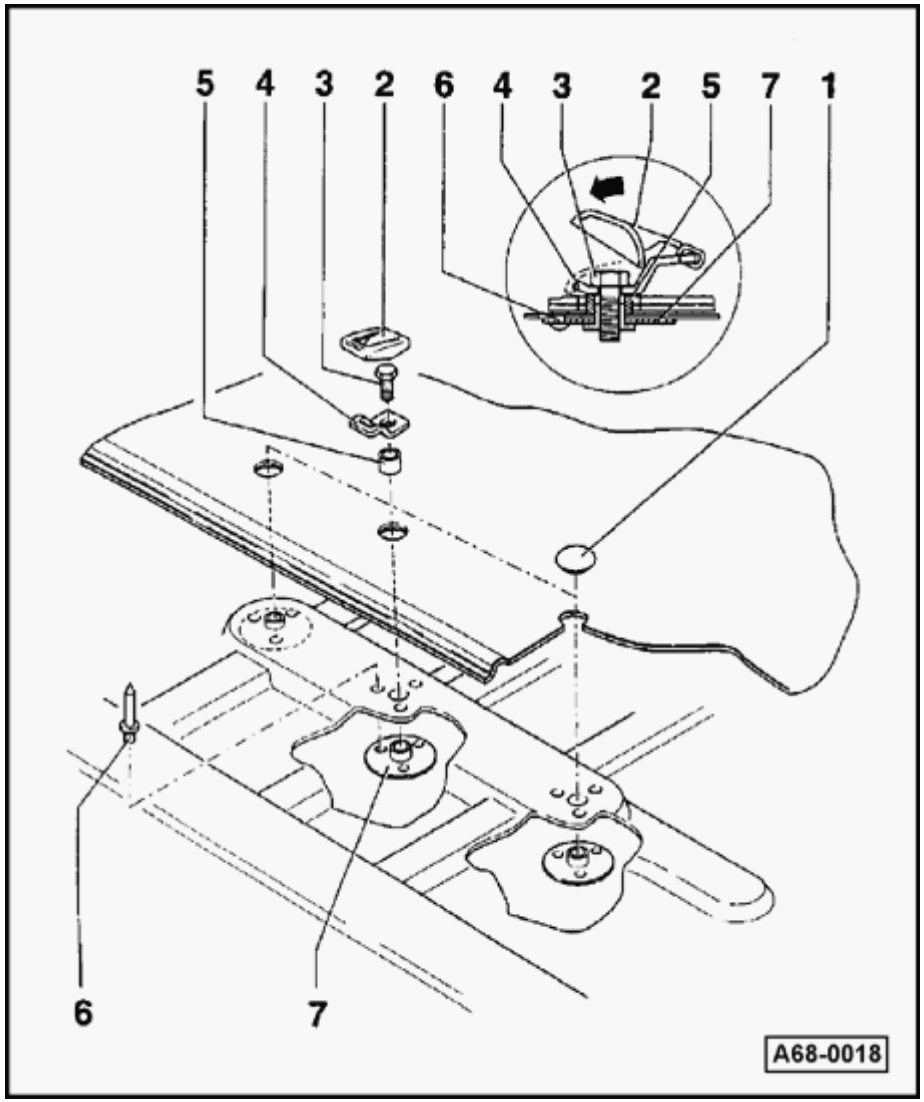
3 - Bolt

- 23 Nm (17 ft lb)

4 - Attachment point

5 - Spacer

69-28



6 - Pop rivet

- Qty: 3 per plate
- To secure thread washer -7- on metal mounting
- Riveted from above (interior)

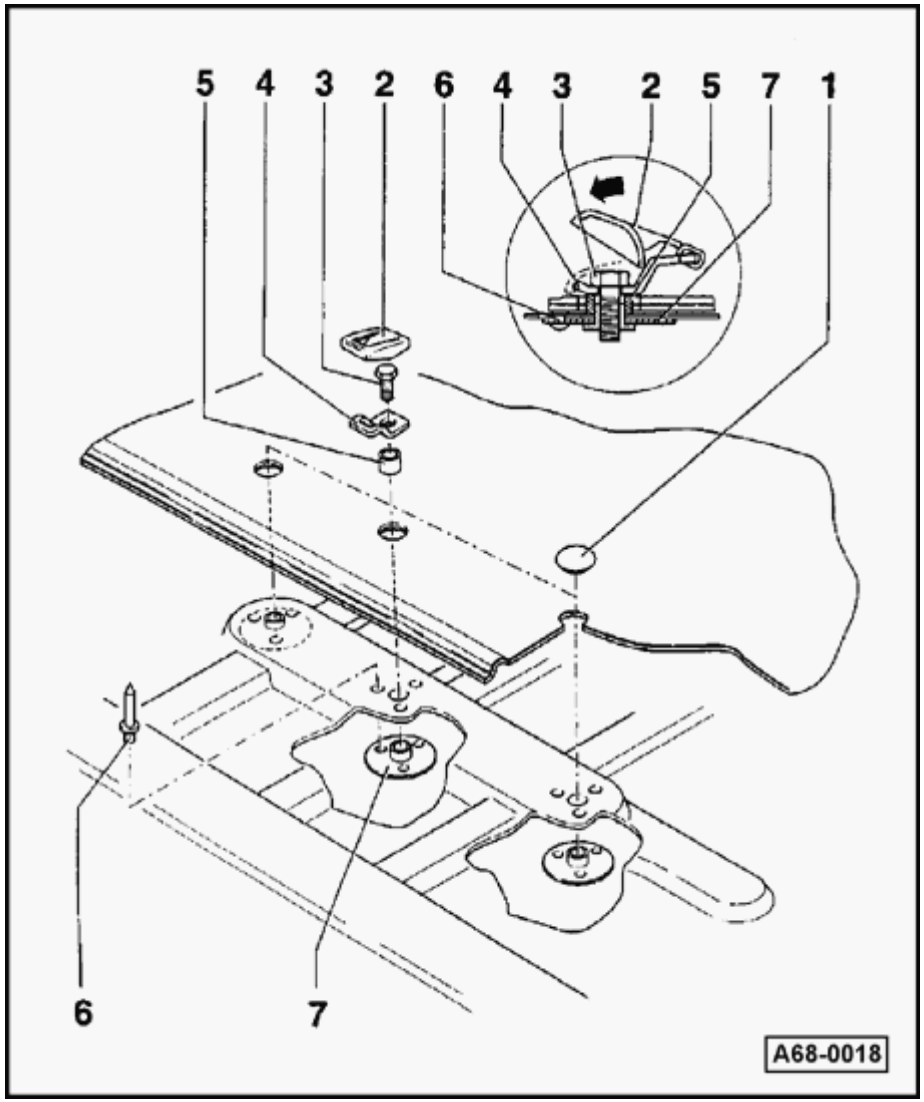
CAUTION!

The thread washer must always be installed from below (trunk side).

7 - Threaded washer

- Secured on trunk side with pop rivets -6-
- Threaded insert points upward

69-29



Rear upper tethers, retrofitting

- Beginning in trunk, use felt tip marker to mark center point of center holes (3x).
- Remove rear shelf ⇒ page 70-83 .

CAUTION!

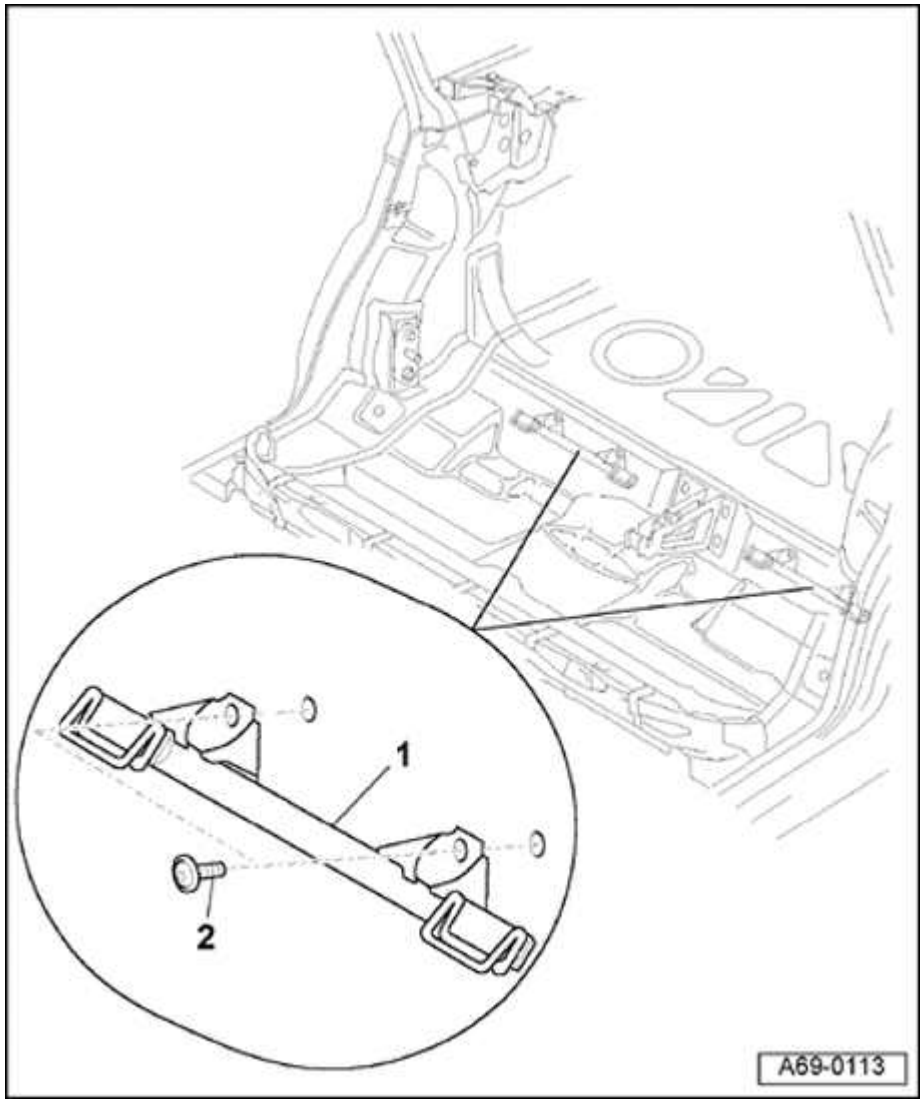
The thread washer must always be installed from below (trunk side).

- Install threaded washer -7- starting from trunk.
- Cut 23 mm hole at each marked point (3x).
- Install rear shelf.

♦ 1, 2, or 3 attachment stops can be installed as needed.

- Install spacer sleeve and secure attachment stop with bolt -3-.
- Close other holes using cover -1-.

69-30



Rear lower anchors, installing

1 - Rear lower anchor bracket

- Remove rear seat ⇒ page 72-57
- Disconnect connectors
- Remove bolts -4- (2x).

2 - Bolts (4x)

- 30 Nm (22 ft lb)
  - Mount rear lower anchor bar -1- with bolts -2- fastened into threaded holes in body floor panel.

Notes:

- *To install solid rear backrest, push tabs behind rear lower anchor bracket.*
- *If rear lower anchor is retrofitted, it may be necessary to flatten tab in vise down to about 3 mm ⇒ page 72-58*
- *Inside anchors are not recommended for attaching rear lower anchors of a LATCH seat in the middle position. The three-point lap/shoulder belt should be used.*

69-31

LATCH system, "Lower Anchors and Tethers for CHildren", installing, removing, retrofitting (Avant)

Rear upper tethers

Note:

Some A4 Avant models may require a seat back change for rear top tether installation.

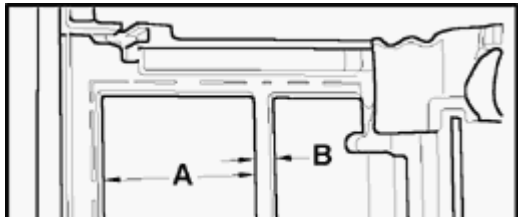
Rear upper tethers (Avant), retrofitting (➢ m.y. 1998)

To retrofit the child seat attachment point on vehicles ➢ m.y. 1998, a backrest from m.y. 1999 or later must be installed.

- Remove old backrest.

⇒ *Repair Manual Body Interior Repair Group 72*

1/3 backrest



- Using sharp knife, carefully cut upholstery -1- at width of 30 mm (dimension -B-) down to indentation -2- (dimension -A- = 195 mm when measured from below).

69-32

2/3 backrest

- Using sharp knife, carefully cut upholstery at reinforcements.

All backrests

- Install new panel on backrest.

  - Note original color and cargo net version.

69-33

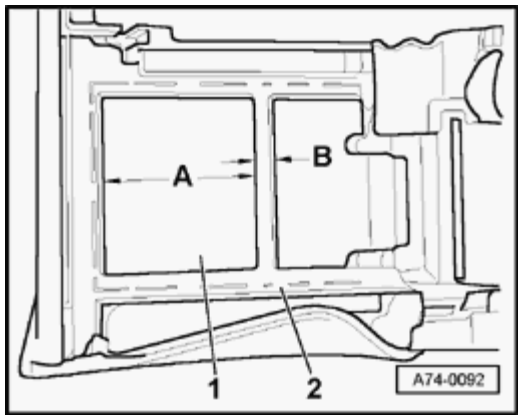
Rear upper tethers (Avant), retrofitting (➢ m.y. 1998)

To retrofit the child seat upper tether points on vehicles ➢ m.y. 1998, a backrest from m.y. 1999 or later must be installed.

- Remove old backrest.

⇒ *Repair Manual Body Interior Repair Group 72*

1/3 backrest



- Using sharp knife, carefully cut upholstery -1- at width of 30 mm (dimension -B-) down to indentation -2- (dimension -A- = 195 mm when measured from below).

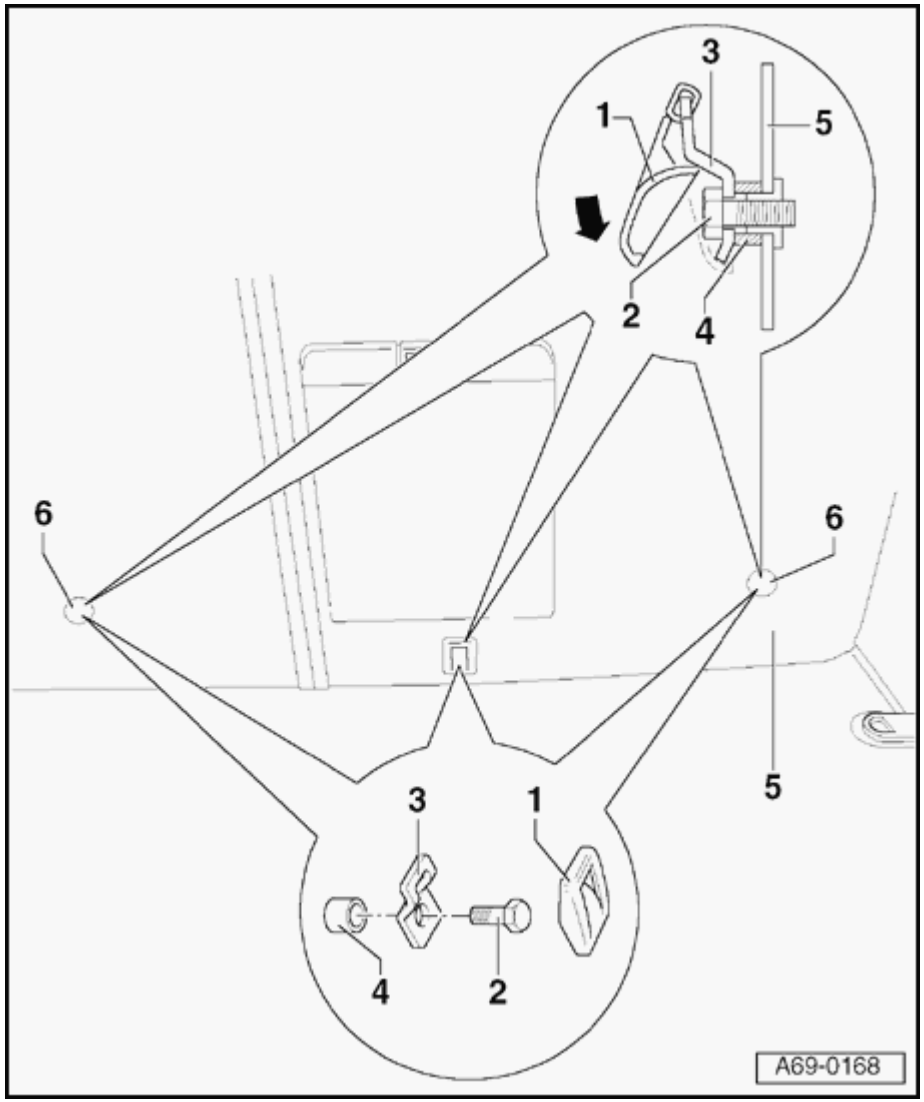
2/3 backrest

- Using sharp knife, carefully cut upholstery at reinforcements.

All backrests

- Install new panel on backrest.
  - ♦ Note original color and cargo net version.

69-34



Rear upper tethers (Avant), removing and installing (m.y. 1999 ➢)

1 - Cap

- To install, attach at front and press downward in direction of arrow

2 - Bolt

- 23 Nm (17 ft lb)

3 - Attachment point

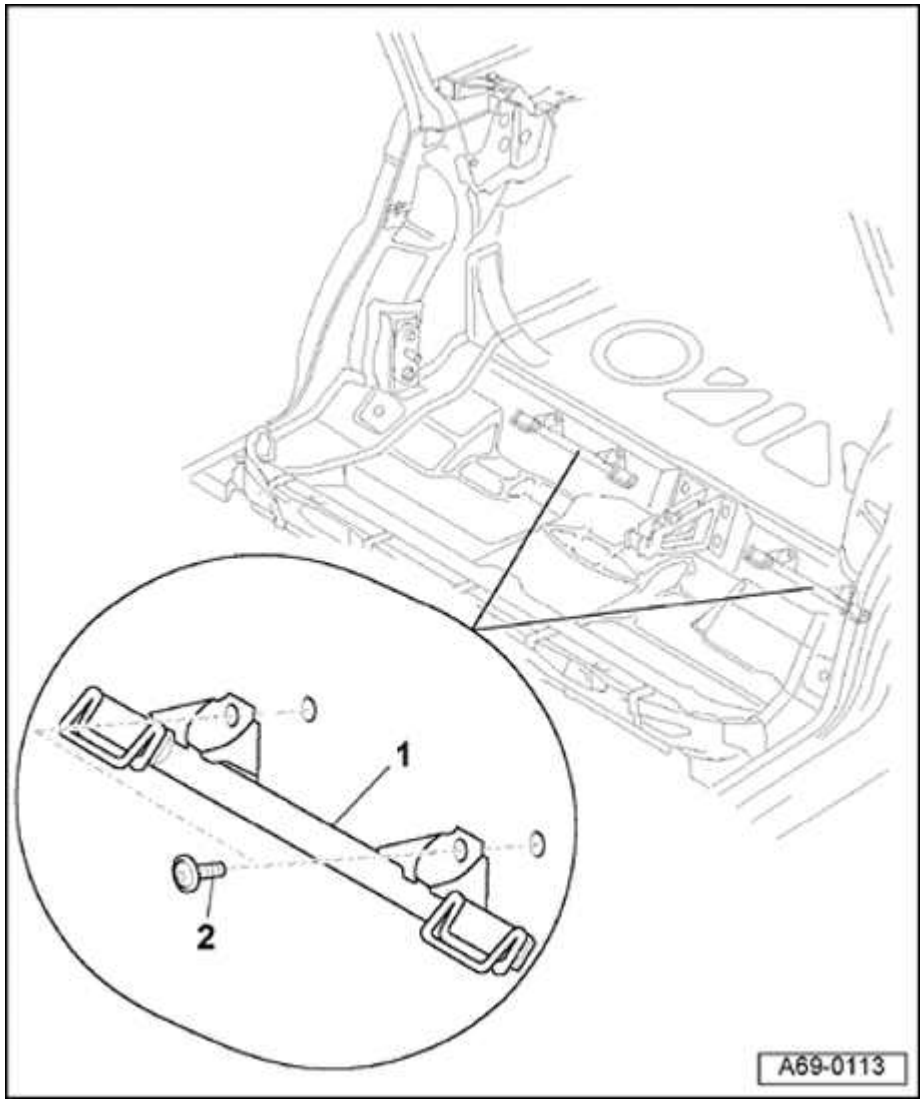
4 - Spacer pulley

5 - Backrest

6 - Plugs

- Remove if necessary and attach items -1- through -4-

69-35



Rear lower anchors, installing

1 - Rear lower anchor bracket

- Remove rear seat ⇒ page 72-57
- Disconnect connectors
- Remove bolts -4- (2x).

2 - Bolts (4x)

♦ 30 Nm (22 ft lb)

- Mount rear lower anchor bar -1- with bolts -2- fastened into threaded holes in body floor panel.

Notes:

♦ *To install solid rear backrest, push tabs behind rear lower bracket.*

♦ *If rear lower anchor is retrofitted, it may be necessary to flatten tab in vise down to about 3 mm ⇒ page 72-58*

♦ *Inside anchors are not recommended for attaching rear lower anchors of a LATCH seat in the middle position. The three-point lap/shoulder belt should be used.*

69-40

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.***

69-41

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 ⇒ page 69-49 .

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

3 - Immediately place old airbag in transport container.

4 - Install new airbag in vehicle.

69-42

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.

69-43

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).

69-44

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 D-pillar.
- Acceleration sensor that hasn't been activated (if floor pan in area near sensor is deformed).

69-45

Also

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.

69-46

B - If airbag control module is replaced:

- Check DTC memory:

⇒ *Repair Manual, Body On Board Diagnostic (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) -K75- does 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.

69-47

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.***

69-48

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.***

69-49

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:

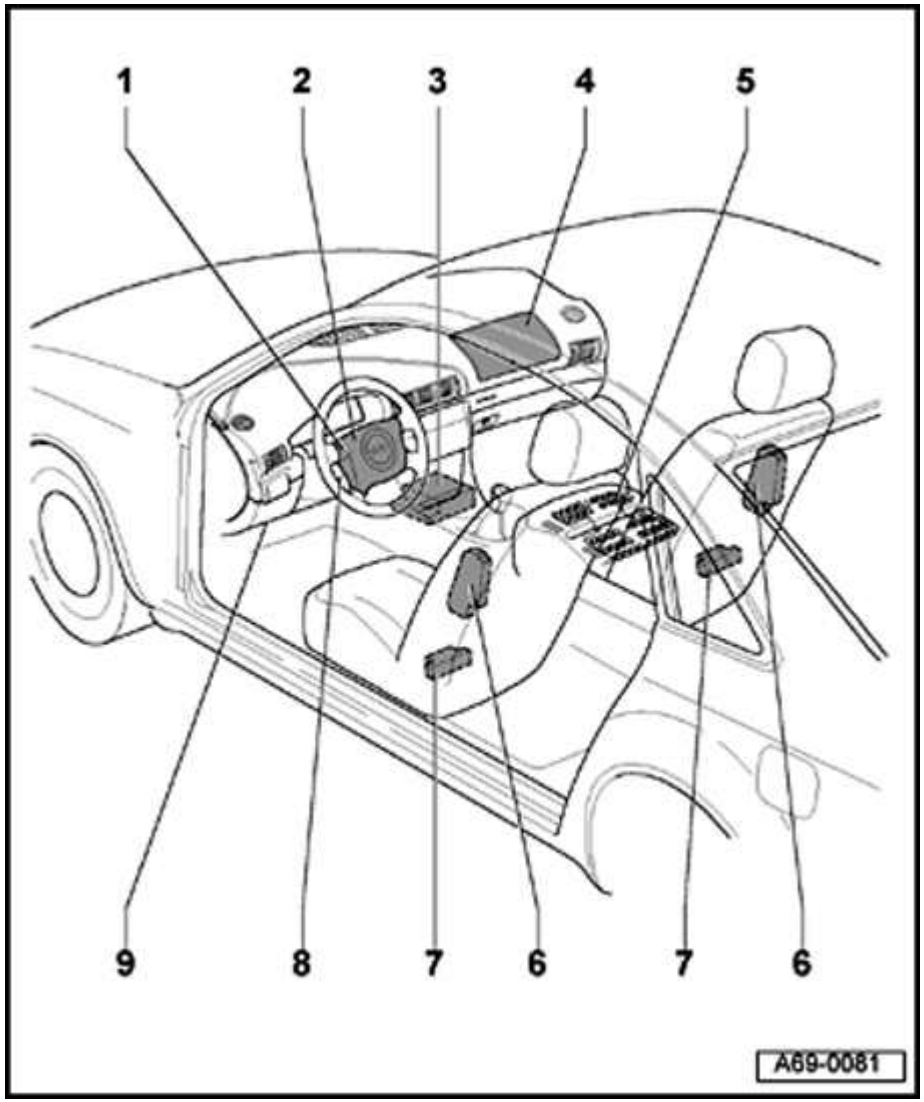
- ***Visually check the vehicle's trim panels for damage before every installation.***
- ***Do not attempt any repair work on the vehicle trim panels (top trim panels for A-pillar, B-pillar, C-pillar and D-pillar).***
- ***Make sure the trim panel is securely fitted during installation.***
- ***Side curtain airbags must only be folded at its intended location (transition of roof to A-pillar).***
- ***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.***

69-50

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.***

69-51



Airbag component locations, overview

1 - Driver-side airbag unit

- Removing ➢ m.y. 1998 ⇒ page 69-53
- Removing m.y. 1998 ➢ ⇒ page 69-54

2 - Driver-side airbag unit (sport steering wheel)

- Removing ➢ m.y. 1998 ⇒ page 69-58
- Removing m.y. 1998 ➢ ⇒ page 69-61

3 - Airbag control module -J234-

- Removing and installing ⇒ page 69-74

4 - Passenger-side airbag unit

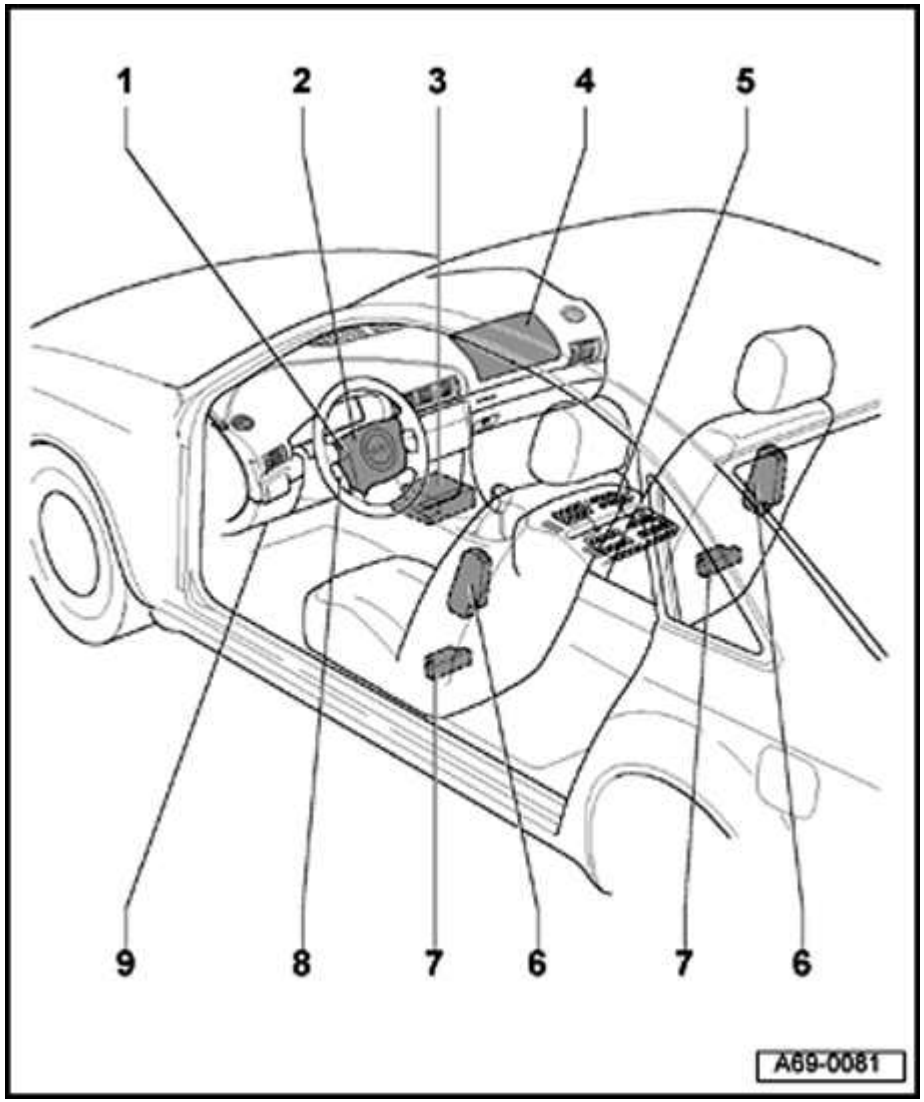
- Removing ⇒ page 69-70
- Locking and activating (adaptation)

⇒ *Repair Manual, Body On Board Diagnostic (OBD), Repair Group 01*

5 - Seat occupant sensor

- Removing and installing ⇒ page 69-83

69-52



6 - Side airbag

- Removing and installing ⇒ page 69-75

7 - Crash sensor for side airbag

- Removing and installing ⇒ 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)

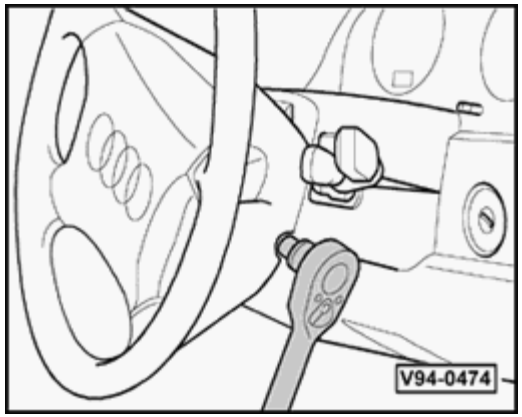
69-53

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

- Disconnect battery Ground (GND) strap.

Note:

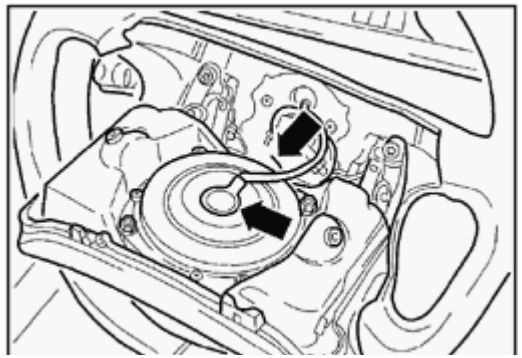
Always follow airbag safety precautions when working on airbag system components (⇒ page 69-40).



- 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.



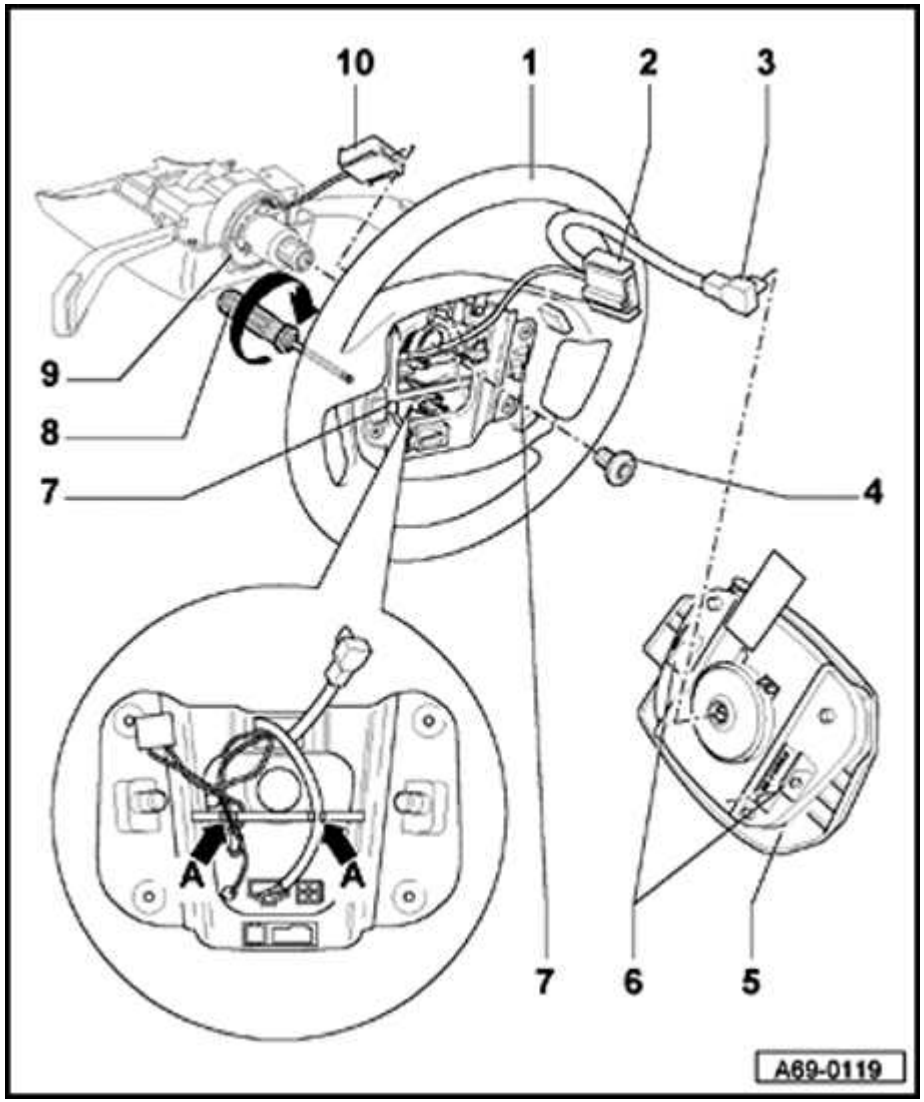
- Place airbag unit on suitable surface with impact padding facing up.
- When installing, make sure harness connector audibly engages (clicks).

WARNING!

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

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

69-54



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

WARNING!

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

1 - Steering wheel

- Removing ⇒ 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)

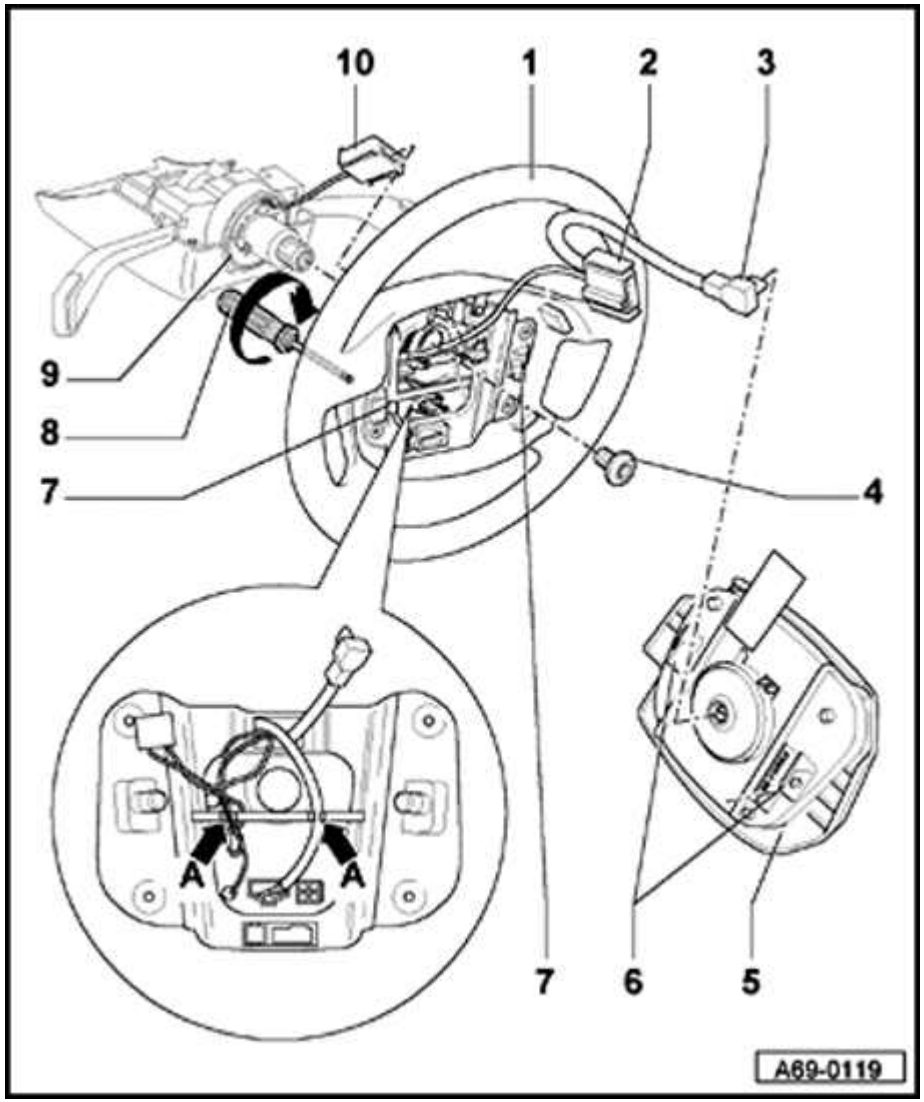
5 - Airbag unit

6 - Threaded bushing

7 - Torx® bolt (T30)

8 - Torx® wrench (T30)

69-55



9 - Spiral spring

10 - Harness connector for heated steering wheel

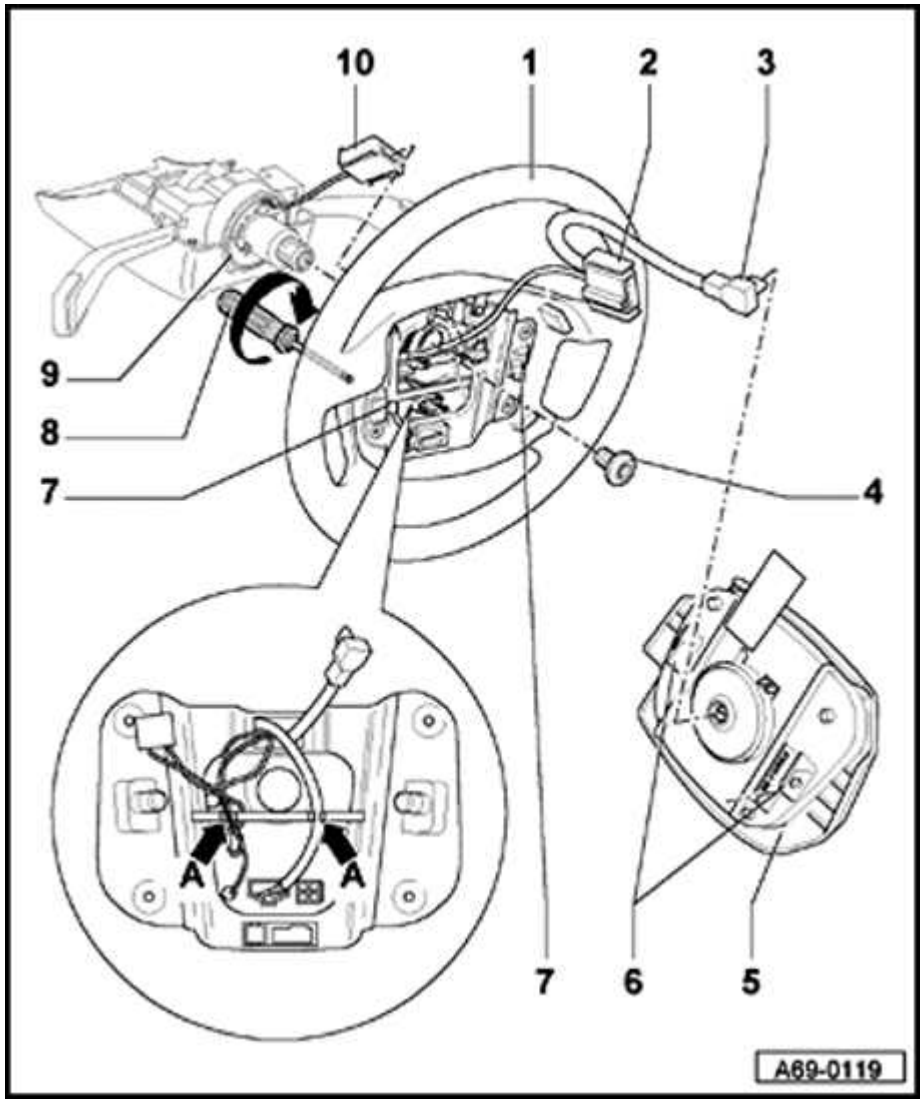
Removing

WARNING!

Follow all safety precautions when working on airbag ⇒ 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.

69-56



Installing

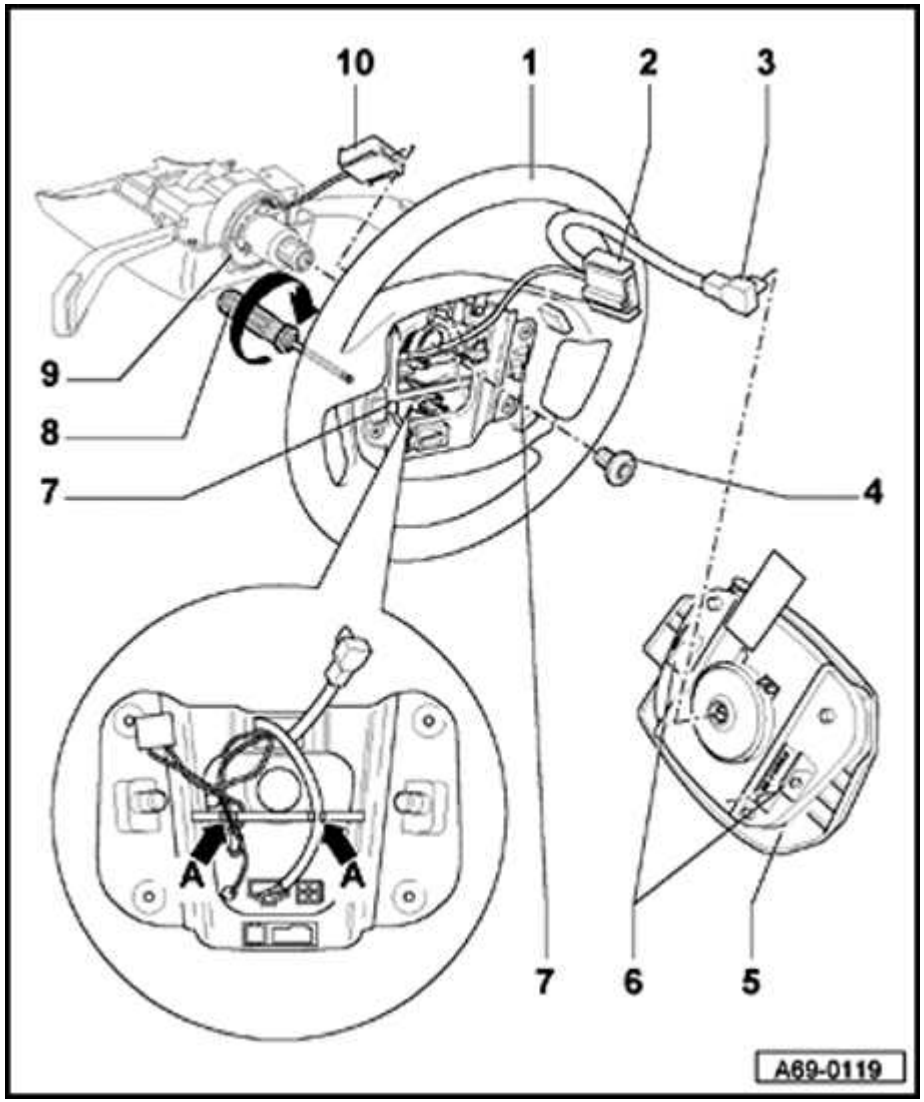
- When installing, make sure connector audibly engages (clicks).

WARNING!

Make sure no one is in vehicle.

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

69-57



Steering wheel, removing and installing

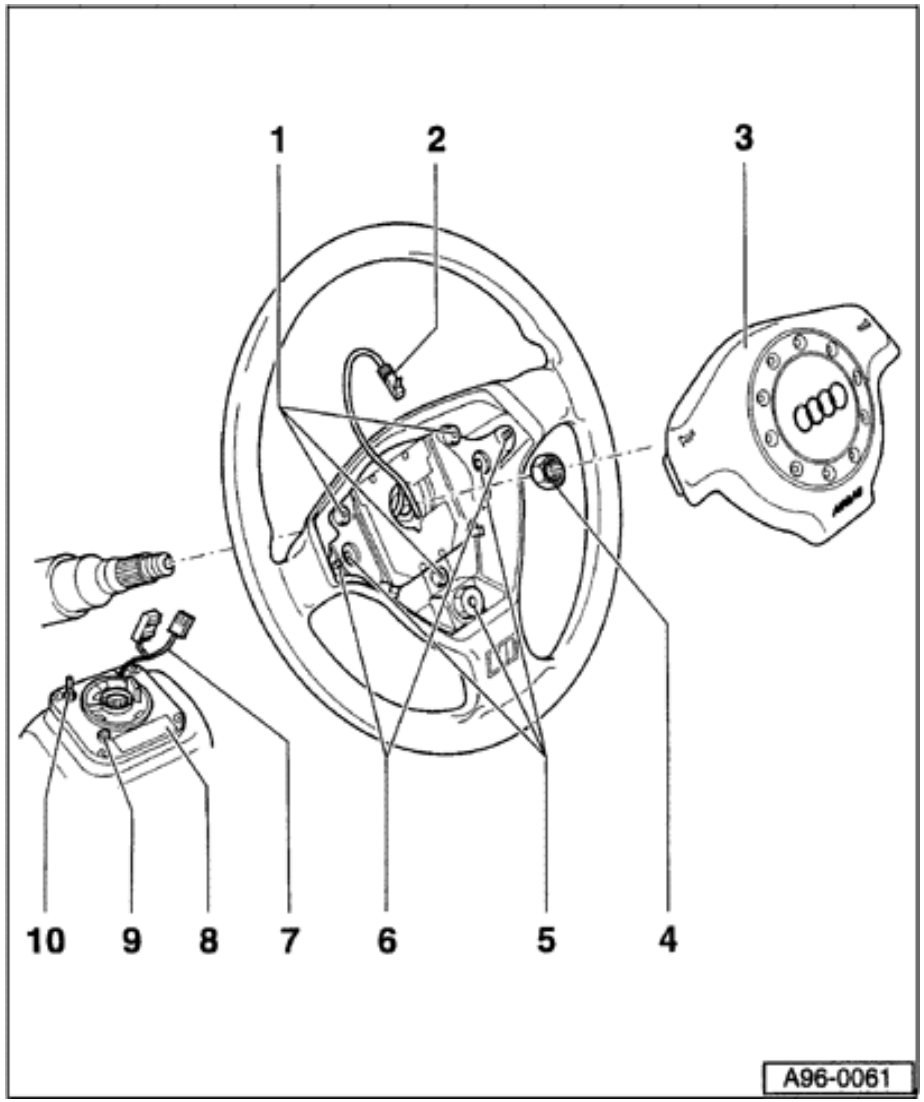
Removing

- Remove airbag unit ⇒ 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 ⇒ page ⇒ Page 69-54 .

69-58



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

WARNING!

Follow all safety precautions when working on airbags ⇒ ***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.

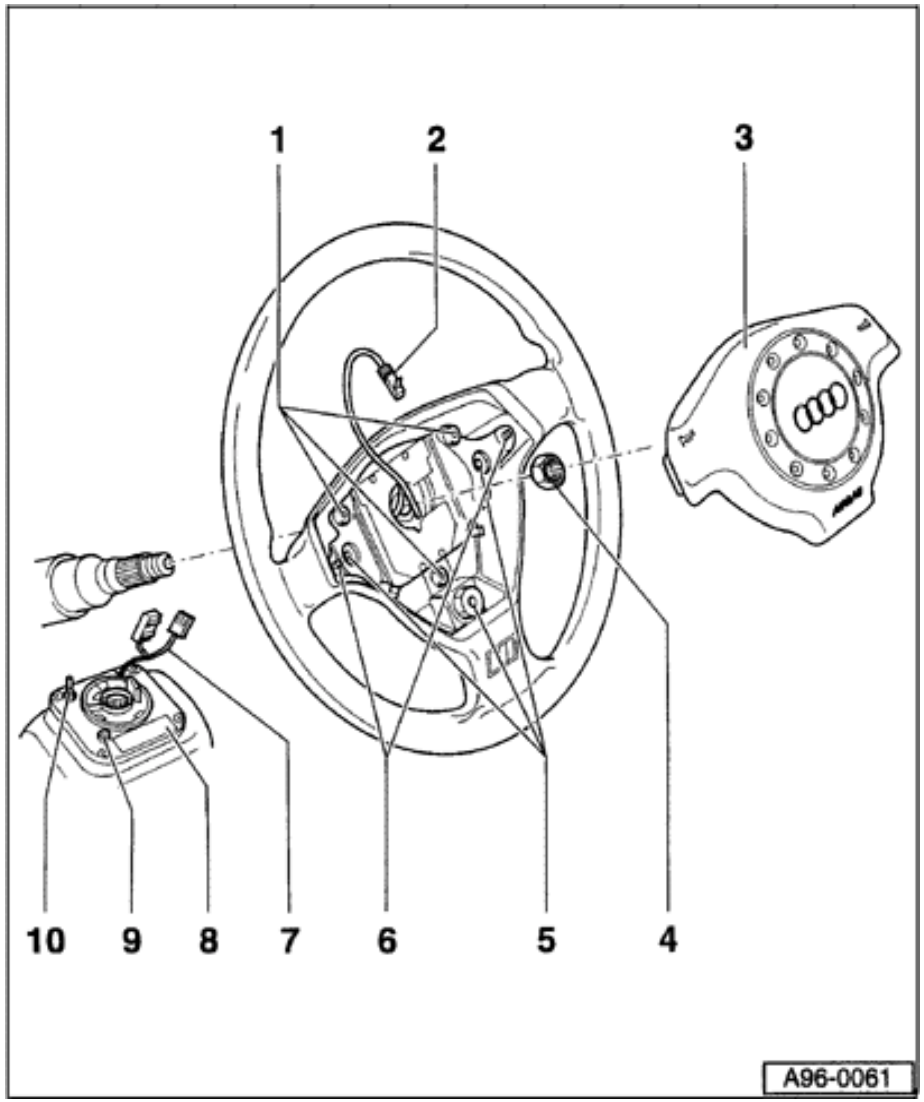
- 5 Nm (44 in. lb).

6 - Torx® bolt (T30)

- 6 Nm (53 in. lb)

7 - Securing cable for spiral spring

69-59



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.

69-60

Airbag sport steering wheel, retrofitting

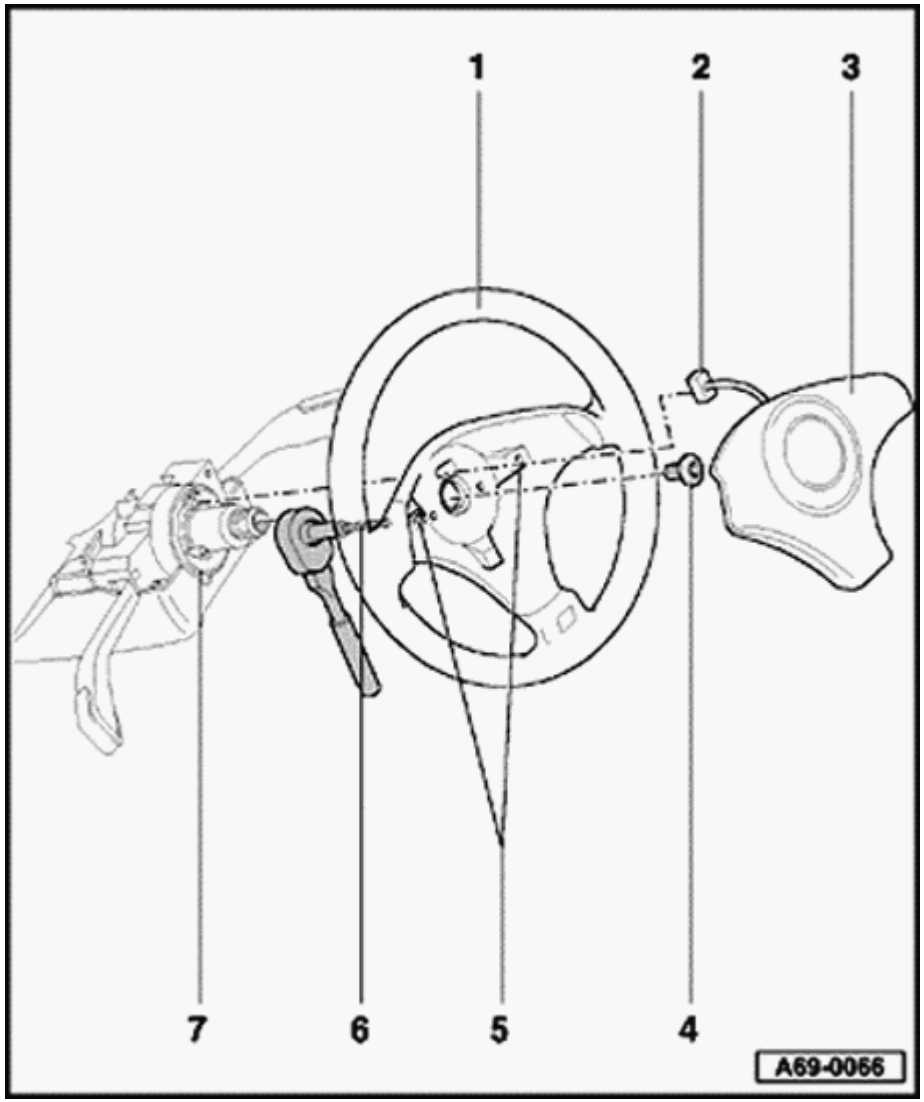
For vehicles m.y. 1995 ➢ that were equipped with an airbag as standard equipment, an Audi dealer can retrofit the vehicle with an airbag sport steering wheel.

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 B-pillar.

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

69-61



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

WARNING!

Follow all safety precautions when working on airbags ⇒ ***page 69-40*** **.**

1 - Sport steering wheel

- Removing ⇒ page 69-63

2 - Harness connector for spiral spring

3 - Airbag unit

4 - Multipoint socket

- Always replace
- 60 Nm (44 ft lb)

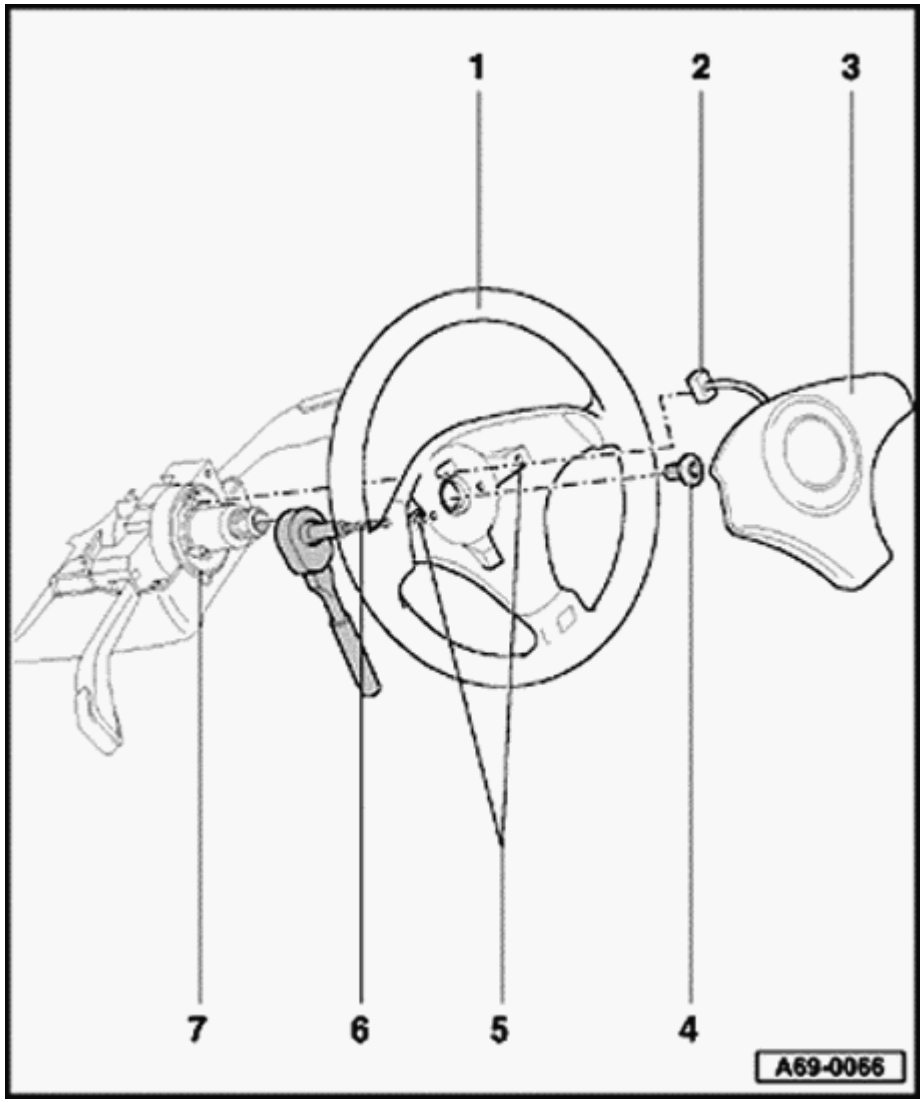
5 - Torx® bolt (T30)

- 7 Nm (62 in. lb)

6 - Torx® wrench (T30)

7 - Spiral spring

69-62



Removing

WARNING!

Follow all safety precautions when working on airbags ⇒ ***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

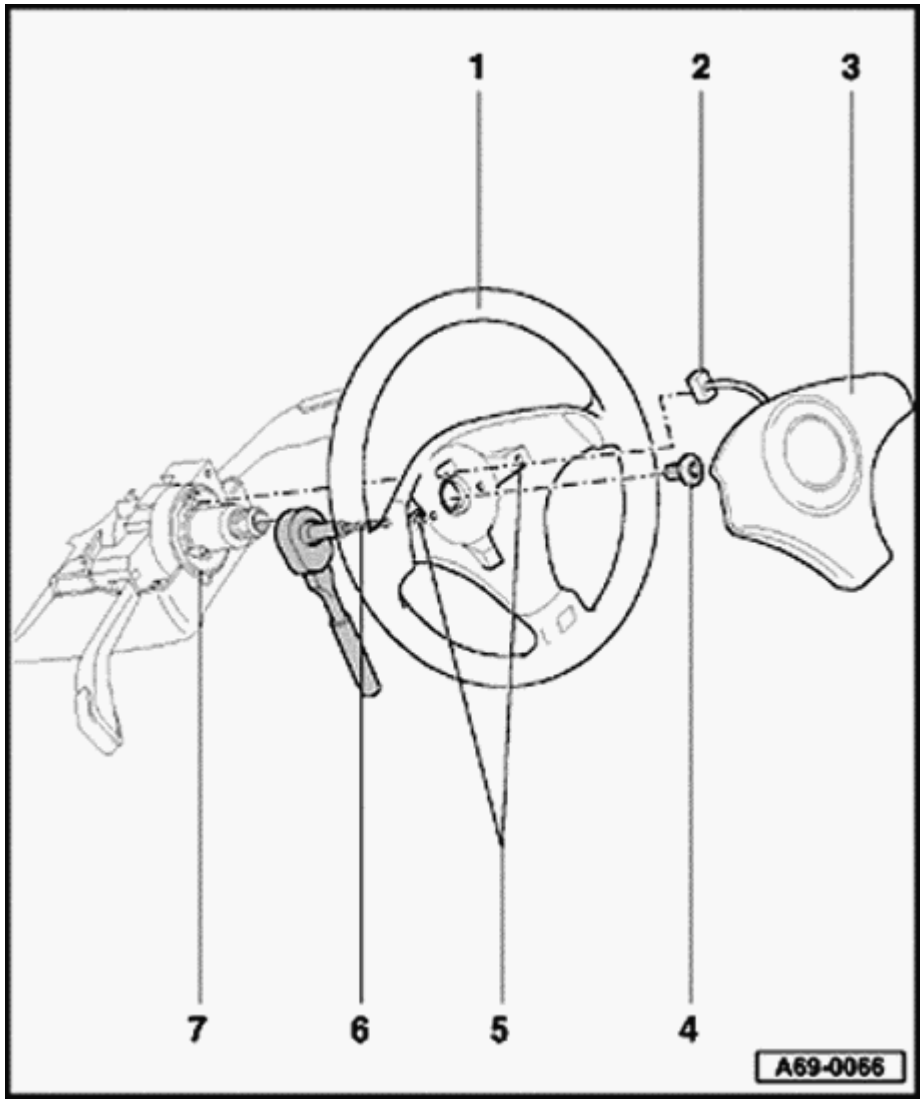
- Make sure harness connector - 2 - audibly engages (clicks).
- Install airbag unit and tighten to 7 Nm (62 in. lb).

WARNING!

Make sure no one is in vehicle.

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

69-63



Sport steering wheel, removing and installing

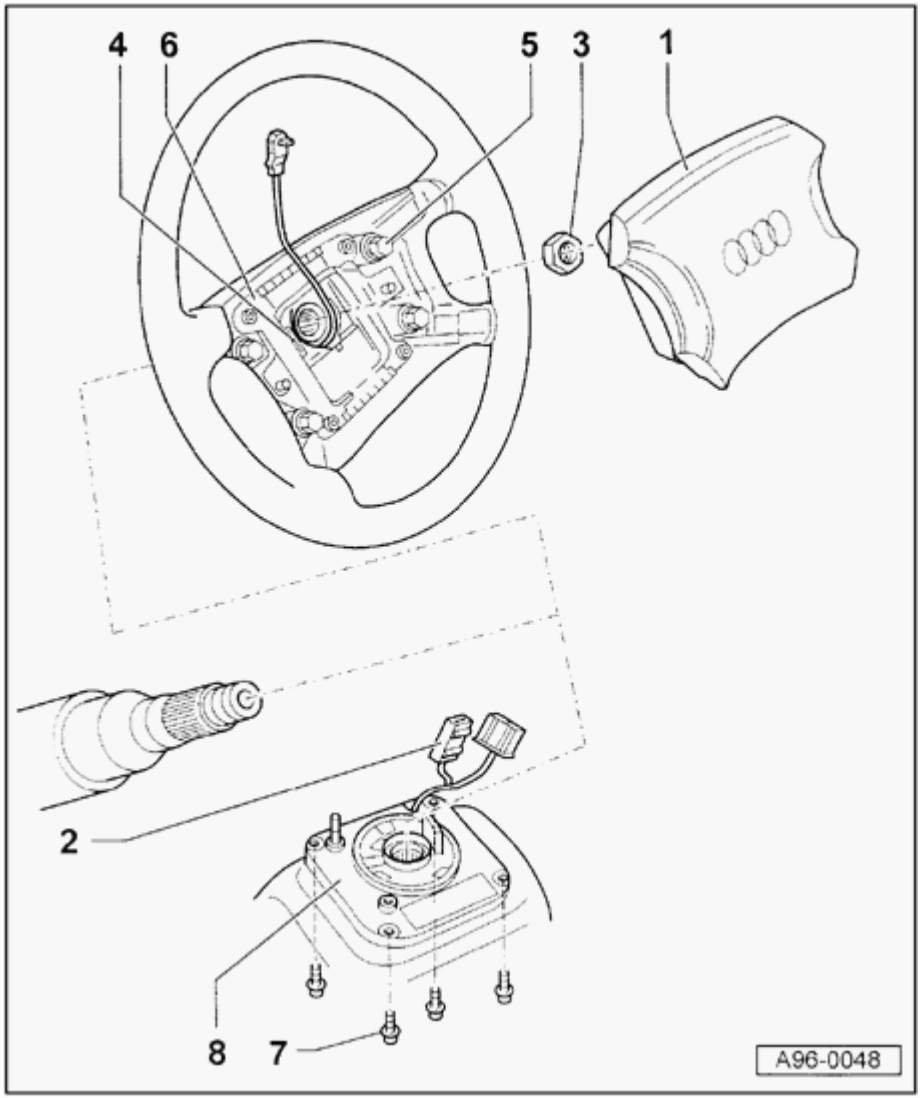
Removing

- Remove airbag unit ⇒ page ⇒ 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 ⇒ page ⇒ Page 69-61 .

69-64



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

WARNING!

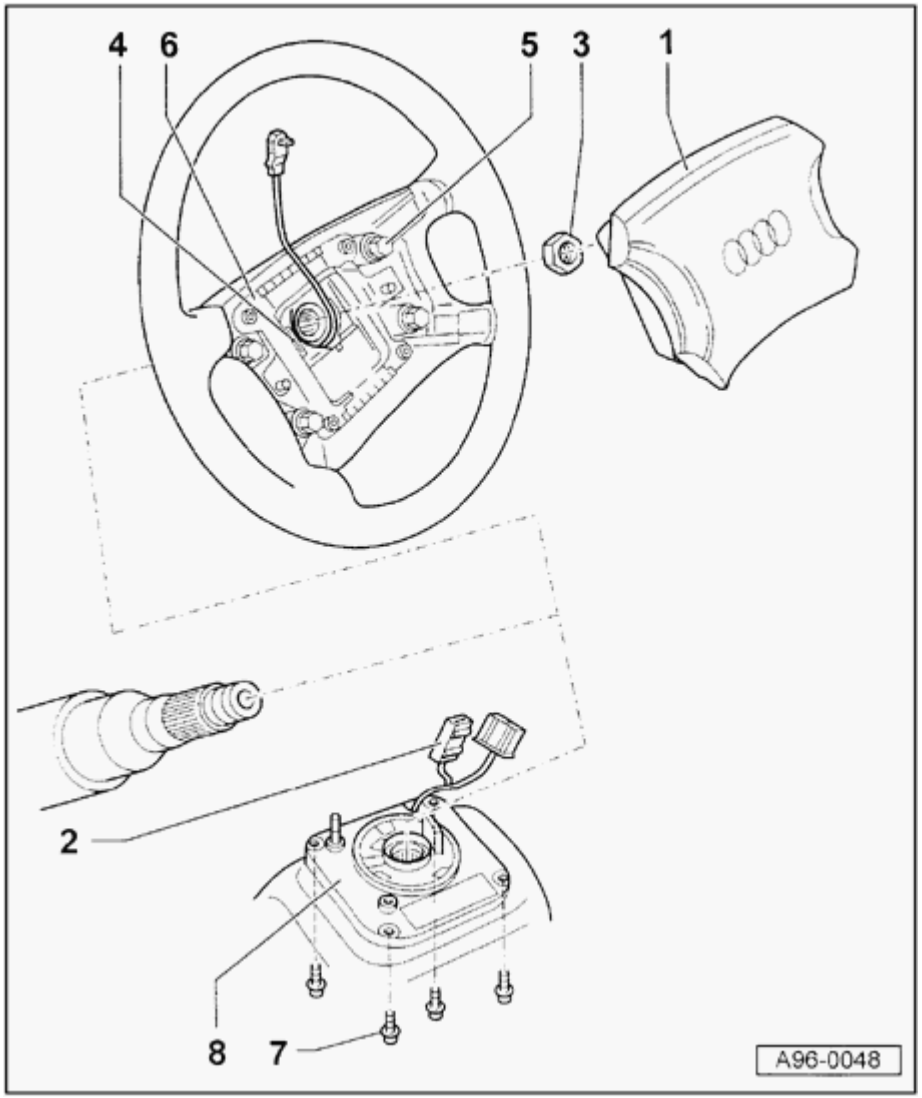
Follow all safety precautions when working on airbags ⇒ ***page 69-40*** **.**

- Disconnect battery Ground (GND) strap.
- Wheels must be facing straight ahead.
- Remove airbag unit ⇒ page 69-53 .
- Remove steering wheel.

⇒ *Repair Manual, Suspension, Wheels, Steering, Repair Group 48*

- Remove bolts -5- (4x) from carrier unit -6-.

69-65



- 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

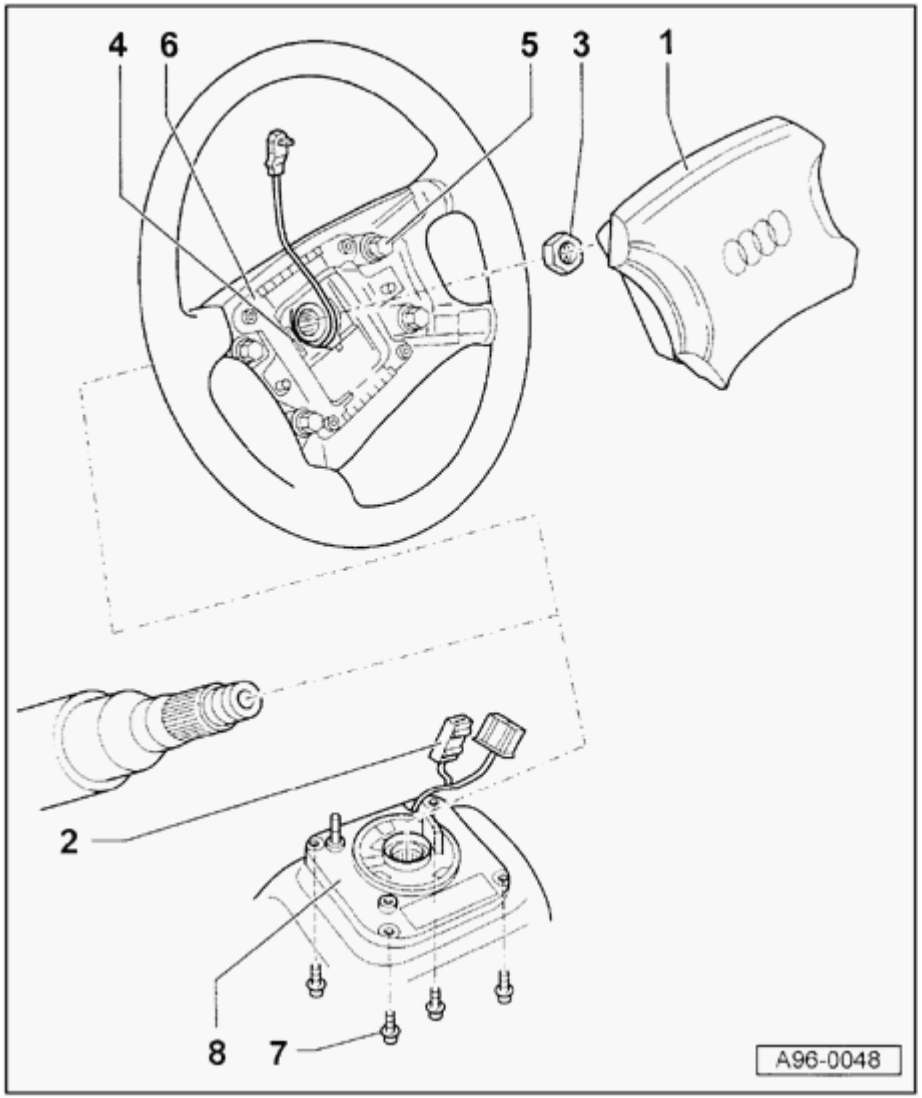
2 - Harness connector for airbag and horn

3 - Mounting bolt for steering wheel

4 - Harness connector for horn

5 - Bolt (4x)

69-66

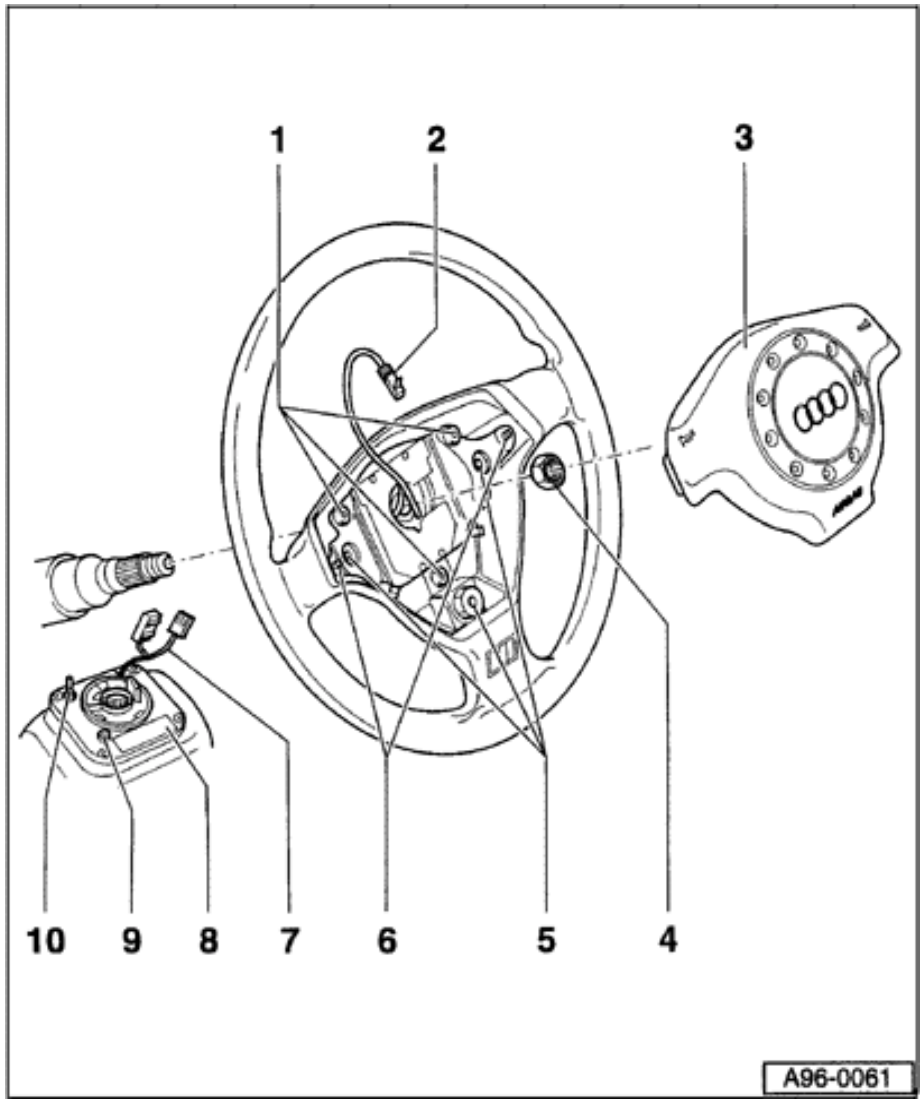


6 - Carrier unit

7 - Bolt (4x)

8 - Spiral spring

69-67



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.*

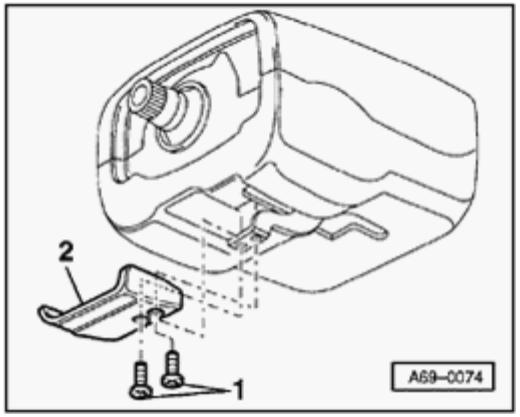
- Remove bolts -1- (3x).
- Tightening torque: 5 Nm (44 in. lb)
- Remove carrier unit. Disconnect harness connectors.
- Remove bolts -5- (3x).
- Tightening torque: 5 Nm (44 in. lb)
- Remove lower part of carrier unit. Disconnect harness connectors.
- Remove bolts securing spiral spring.
- Pull spiral spring downward and remove. Do not rotate spiral spring while it is removed.

69-68

Spiral spring, removing and installing

- Driver-side airbag unit and steering wheel removed

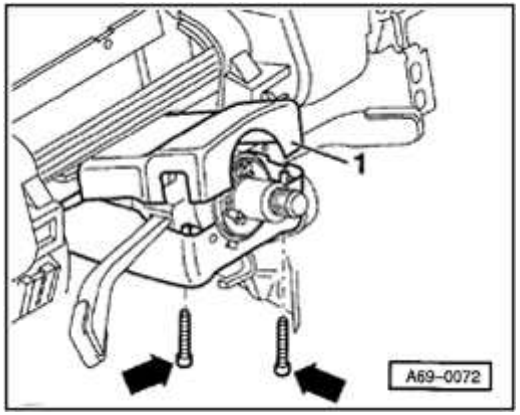
- Pull steering column all the way out and down.



- Remove bolt -1- (2x).

  Tightening torque: 2.8 Nm (25 in. lb)

- Remove handle -2-.



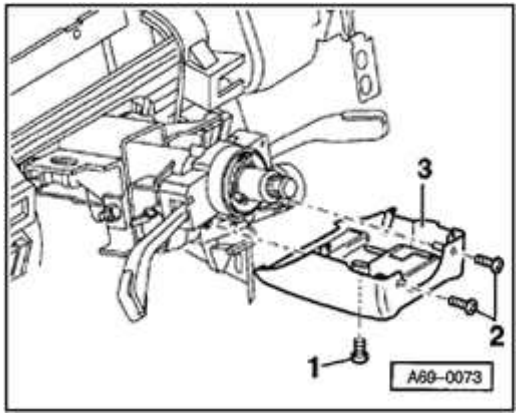
- Remove two Phillips-head screws (arrows).

  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.

69-69



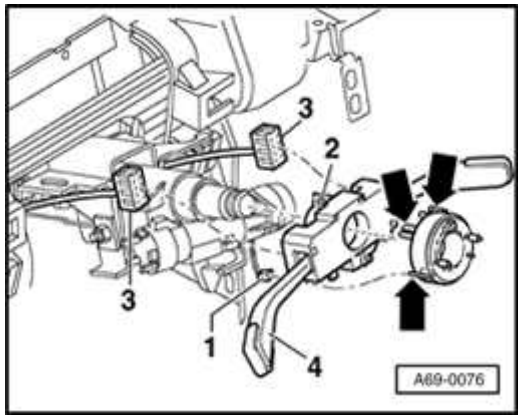
- Remove bolts -2- (2x).

  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-.

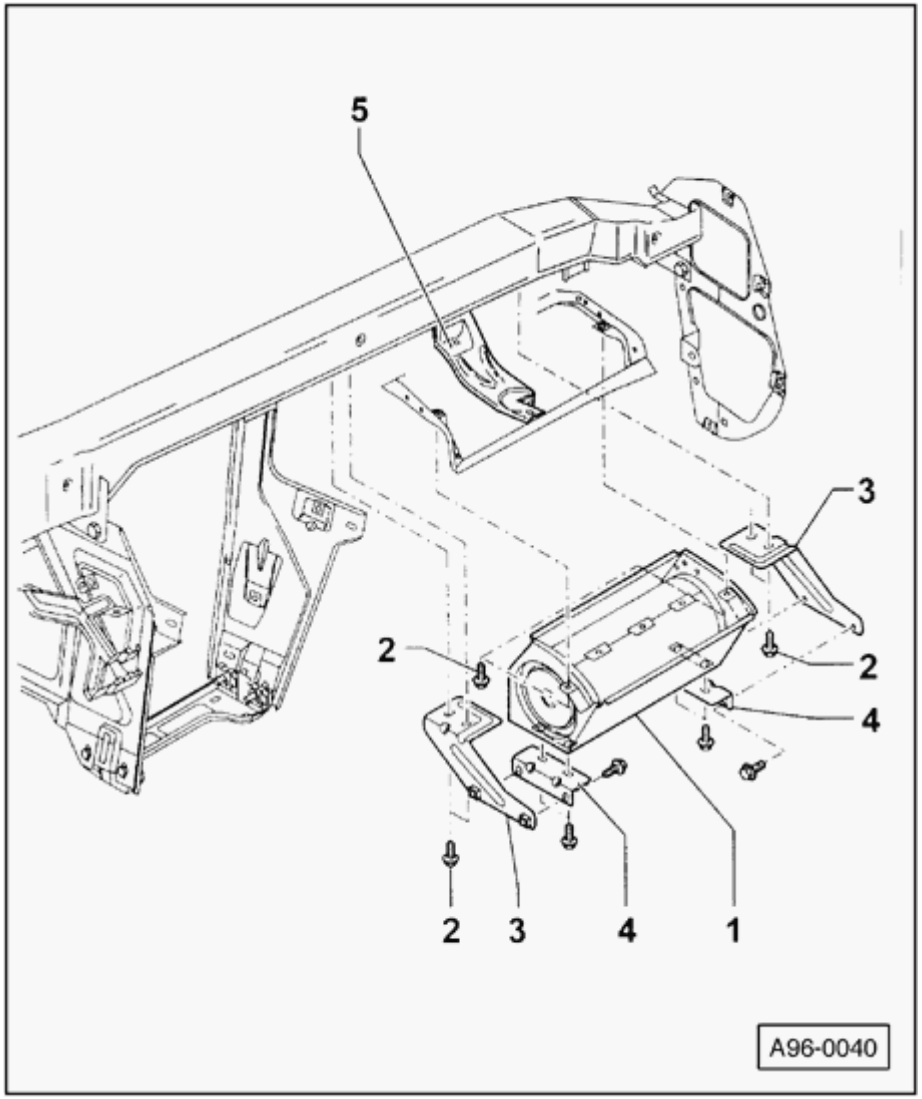


- Disconnect harness connector -1-.
- Release retaining tab (arrows) and pull spiral spring from steering wheel switch.

Notes:

- *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.*

69-70



Passenger-side airbag unit, removing and installing

1 - Passenger-side airbag unit

WARNING!

Follow all safety precautions when working on airbags ⇒ 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) ⇒ Fig. 1 .

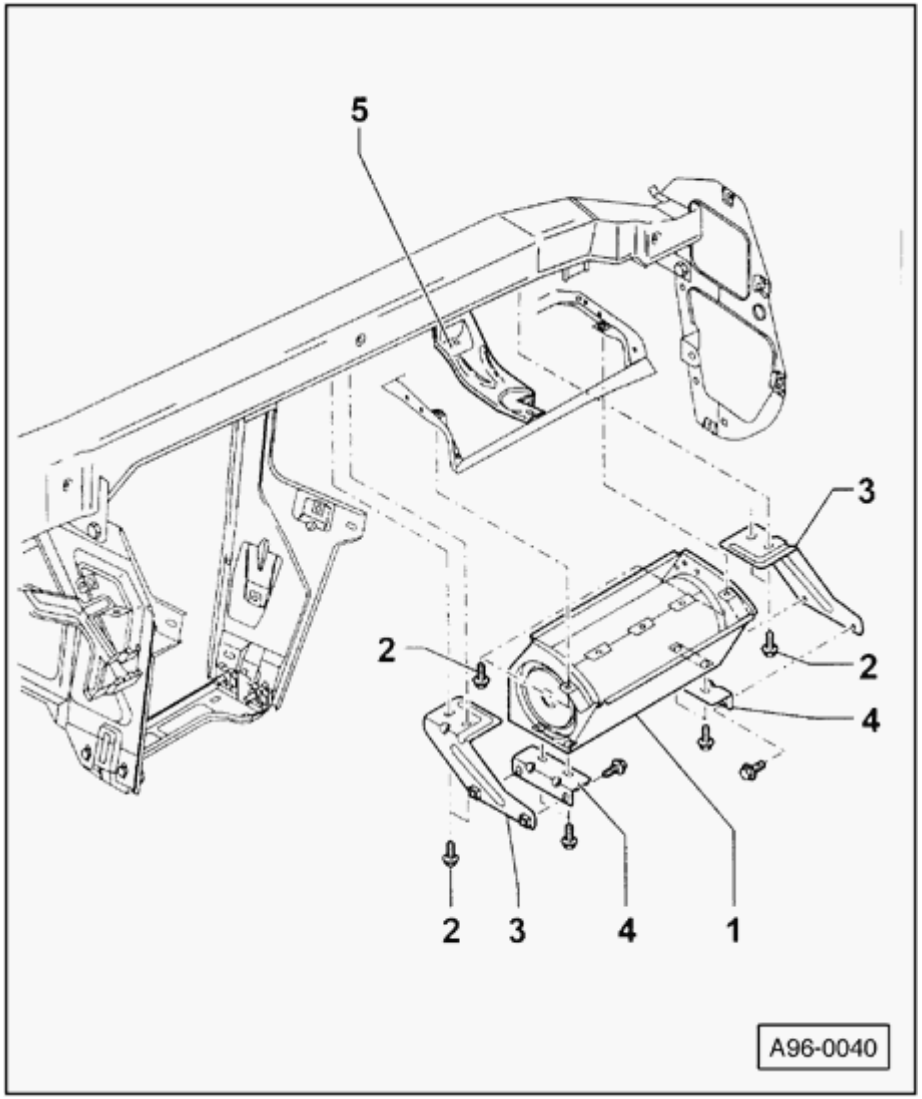
WARNING!

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

- First, disconnect both angle brackets -4-.

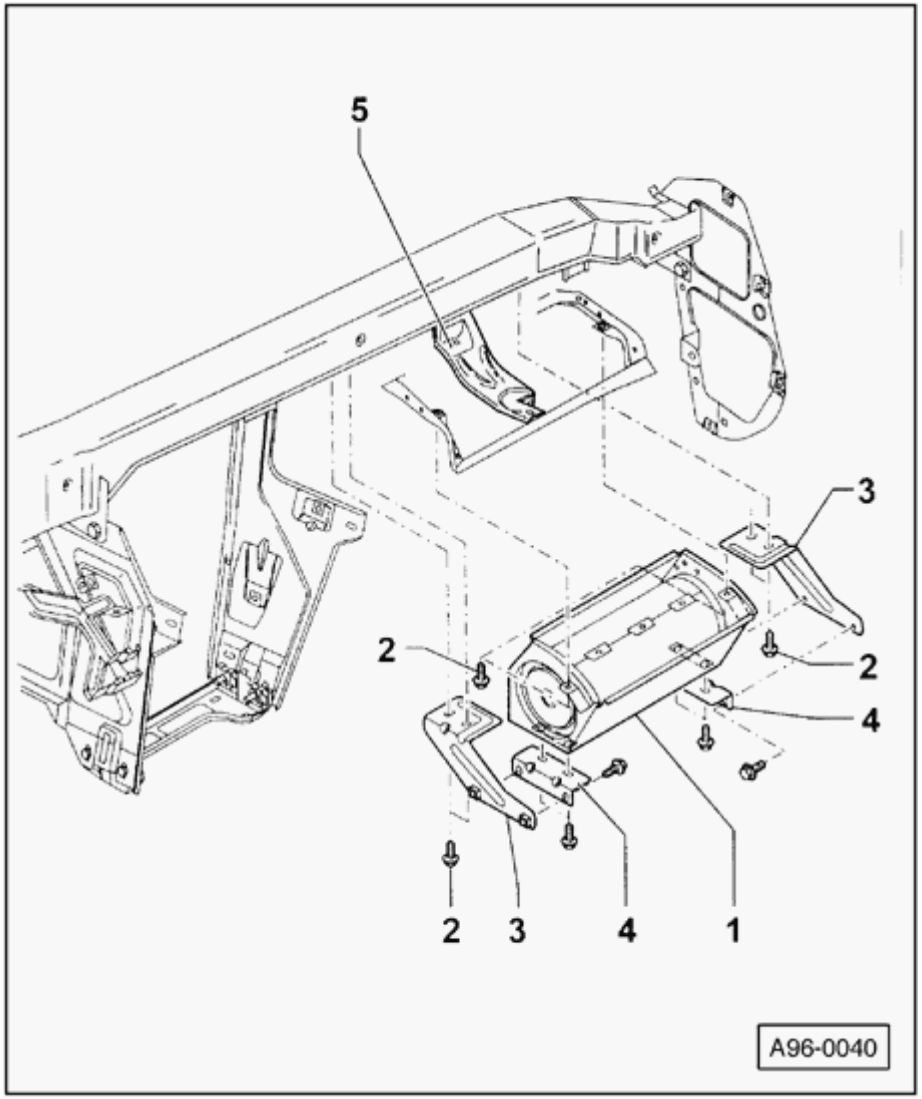
- Remove both angle brackets -3-.

69-71



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

69-72



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

Note:

Always replace instrument panel after passenger-side 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

5 - Bracket

69-73

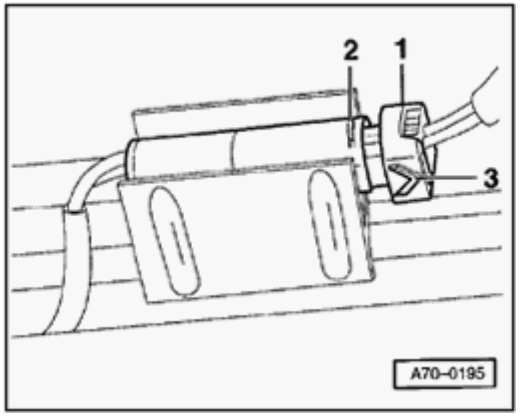


Fig. 1 Disconnecting airbag harness connector

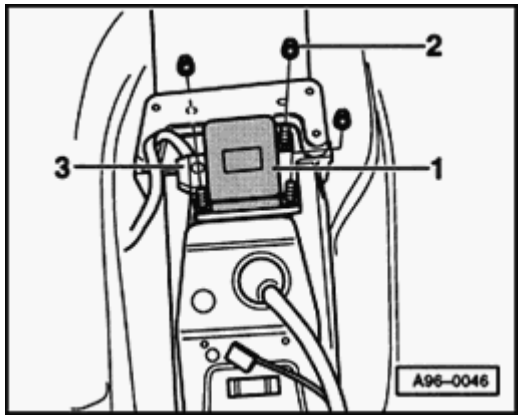
- Using screwdriver, push harness connector -1- for passenger-side airbag over retaining tab -2- and disconnect harness connector in direction of arrow -3-.

69-74

Airbag control module -J234-, removing and installing

- Disconnect battery Ground (GND) strap.

- Remove front center console ⇒ page 68-30 .



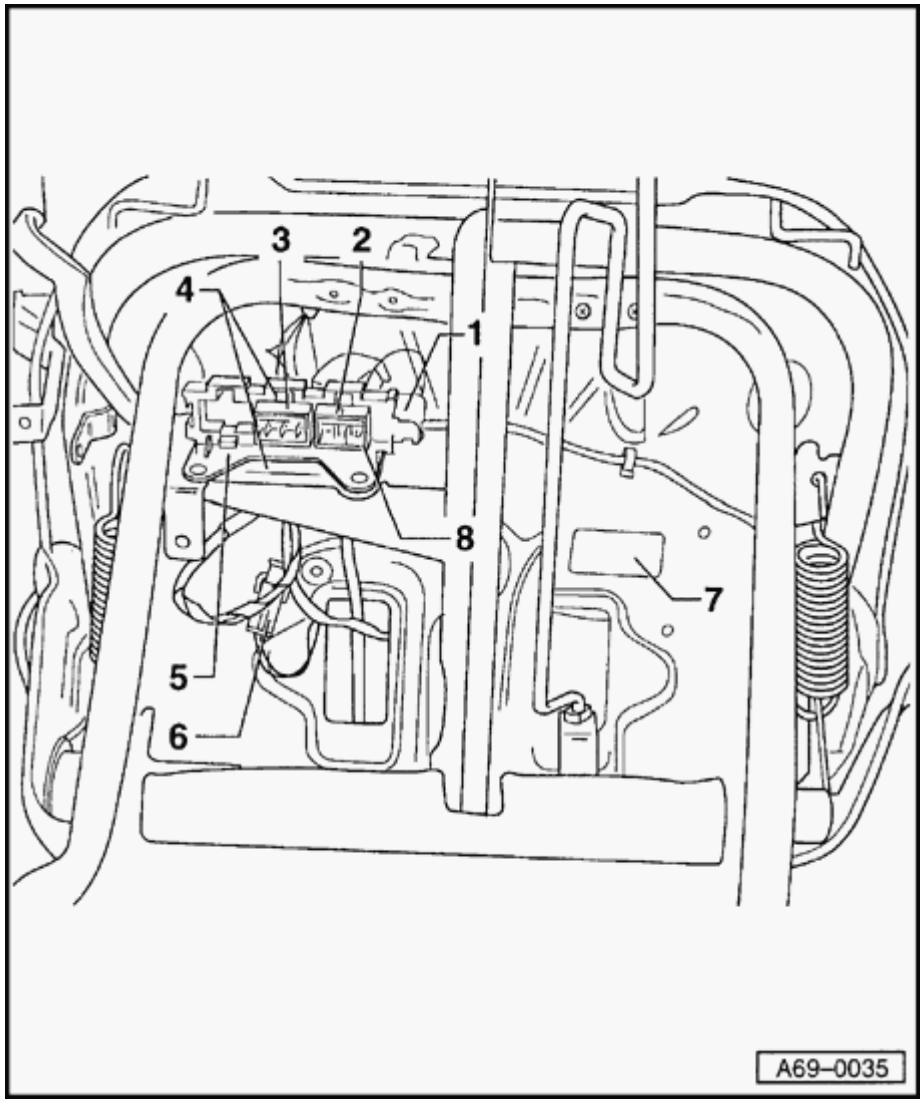
- Disconnect securing bracket at harness connector -3-.
- Disconnect harness connector -3- from control module -1-.
- Remove nuts -2- (3x).

  Tightening torque: 6 Nm (53 in. lb)
- Remove airbag control module -J234-.

Note:

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

69-75



Side airbag, removing and installing

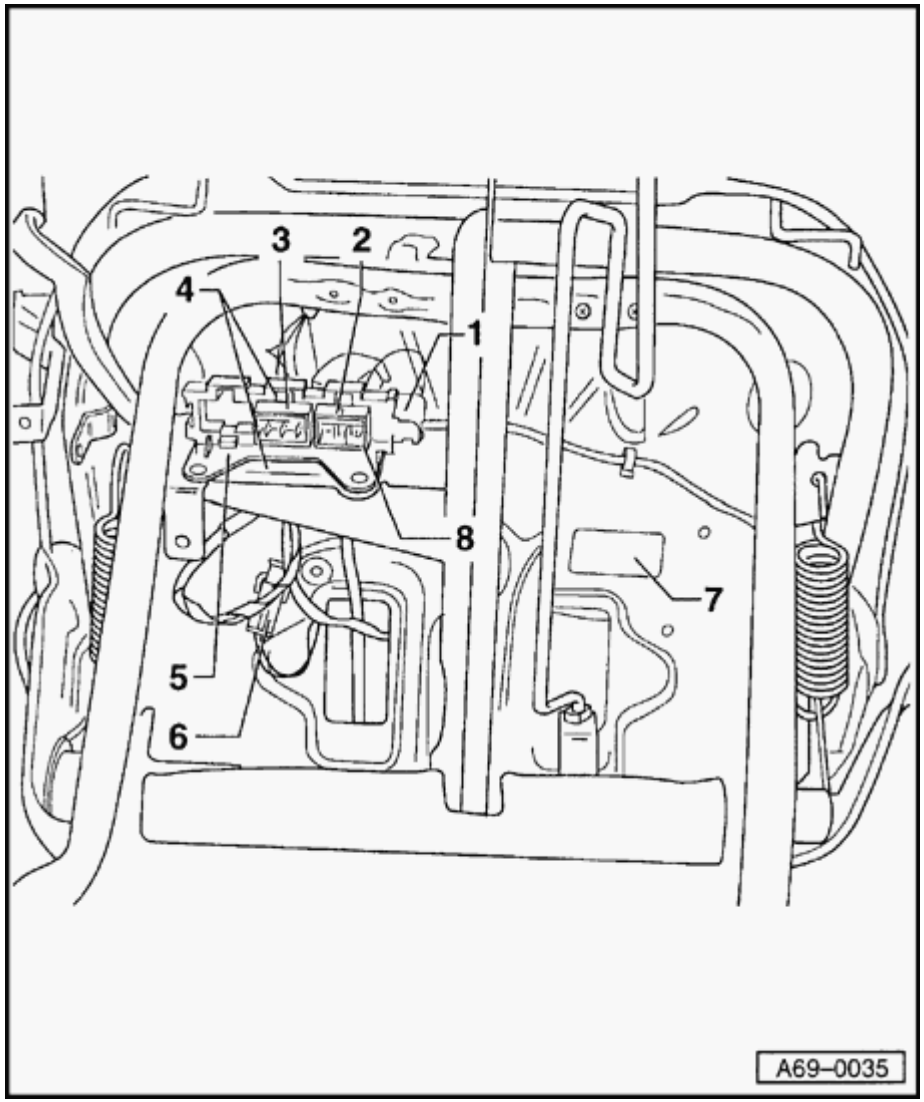
WARNING!

- ***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 ⇒ 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 -1- from connector strip -5- by pressing on retaining tab.

69-76



- Disconnect intermediate connector for seatback heater -6-.
- Disconnect harness connector for side airbag -1- from outer edge of seat ⇒ Fig. 1
- Remove side airbag unit ⇒ page 69-79 .

1 - Harness connector for side airbag

2 - Harness connector for sensor mat

3 - Retaining tab

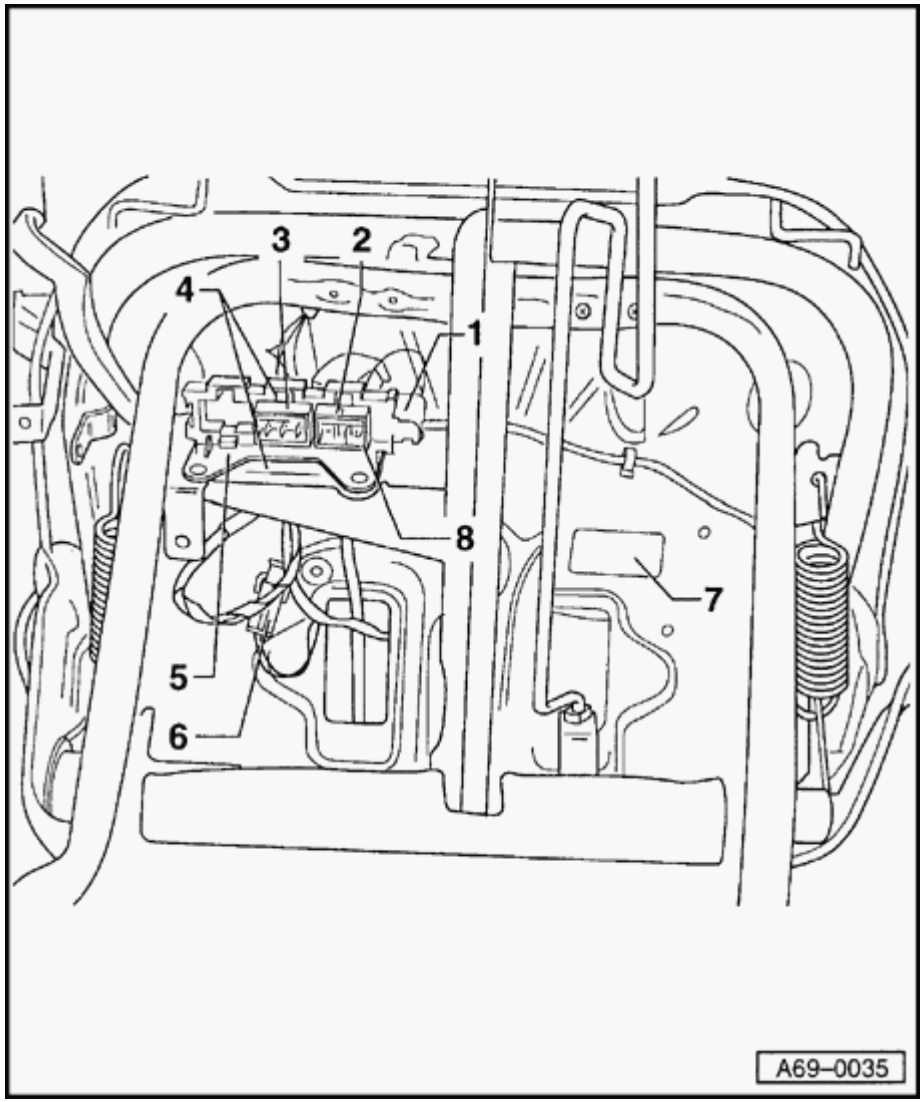
4 - Harness connector for seat heater

5 - Connector strip

6 - Intermediate connector for seatback heater

7 - Airbag number sticker

69-77



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.

69-78

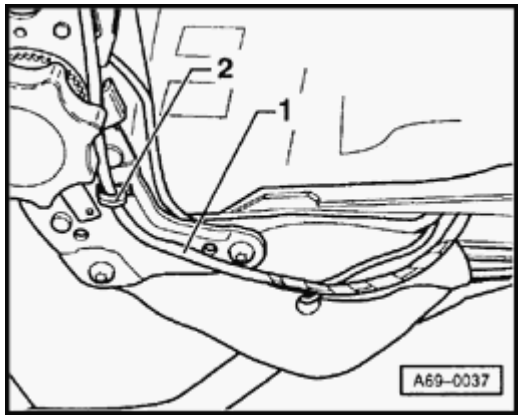


Fig. 1 Wiring location on outer edge of seat

- Remove backrest cover ⇒ page 74-12 .
- Unclip clip -2- (1x).

WARNING!

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

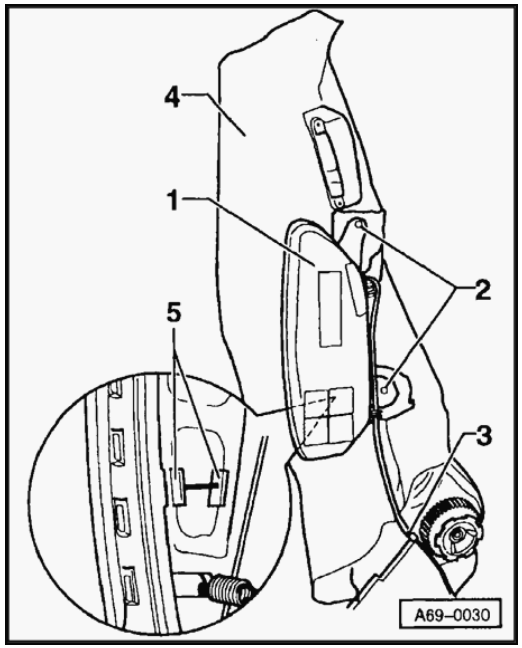
69-79

Side airbag unit, removing and installing

WARNING!

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

Removing



- Remove bolts -2- (2x).

WARNING!

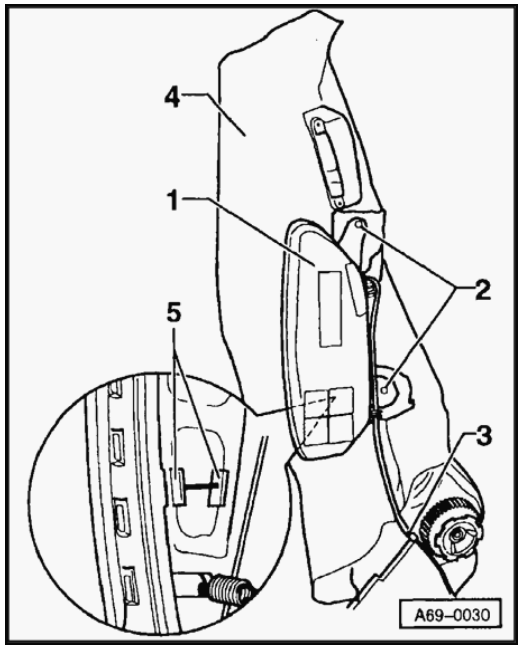
- ***Do NOT reuse bolts -2-. Replace the metal bolts with M5 bolts and nuts supplied.***
- ***Drill mounting holes to 5.5 mm.***
- ***Tightening torque: 5.5 Nm (49 in. lb)***

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.

69-80



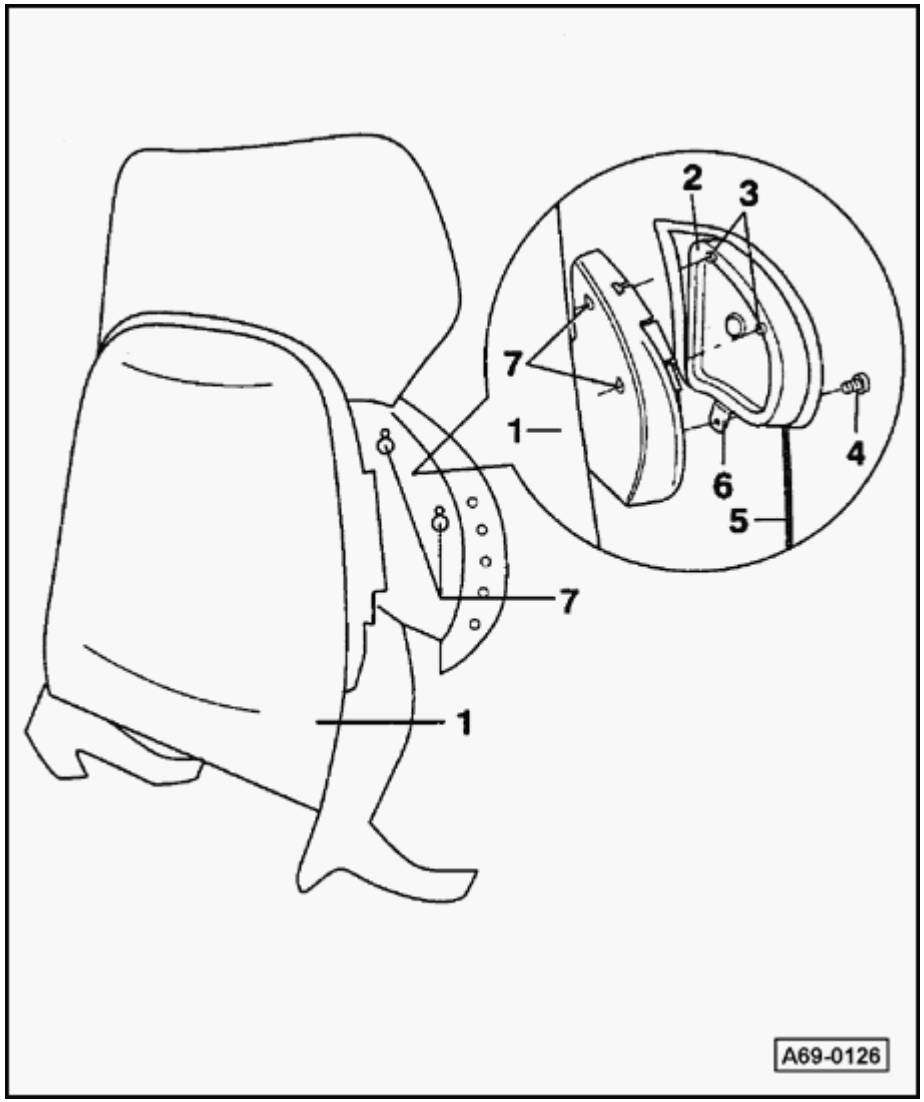
Installing

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 ⇒ page 69-75 , item -7-.

69-81



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 .***

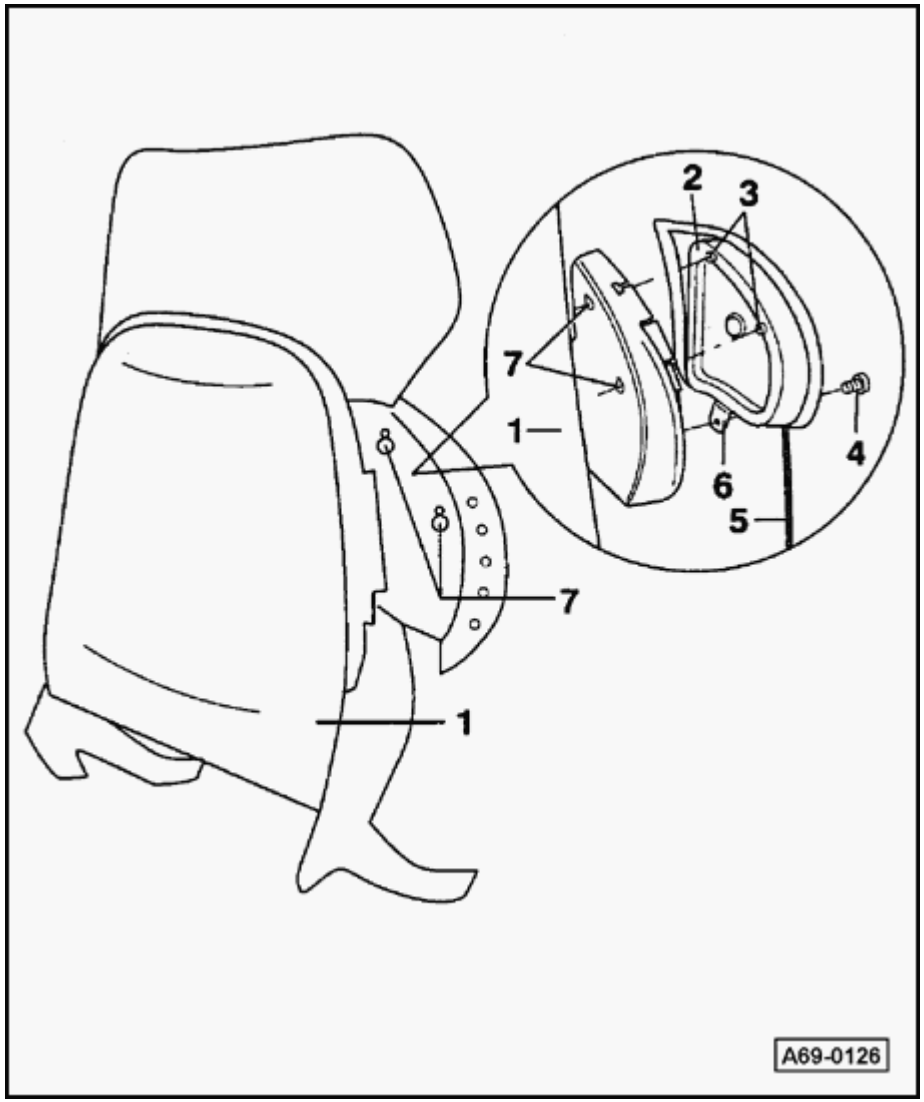
1 - Backrest

2 - Side airbag unit

Removing:

- Remove Recaro seat ⇒ page 72-25 .
- Remove mounting trim ⇒ 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-.

69-82



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

6 - Retainer

7 - Locating holes

69-83

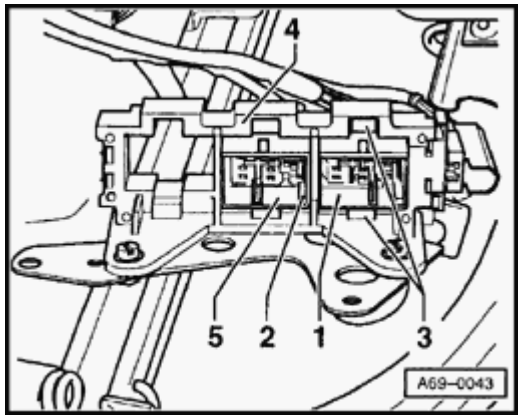
Seat occupant sensor, removing and installing

WARNING!

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

Note:

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



- Removing seat ⇒ page 72-2 .
- Remove seat cover ⇒ page 74-15 .

Note:

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.

69-84

- When installing, make sure bar -2- points toward tunnel.

- After installing sensor mat, test sensor mat function using VAG1551 Scan Tool (ST) ⇒ 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

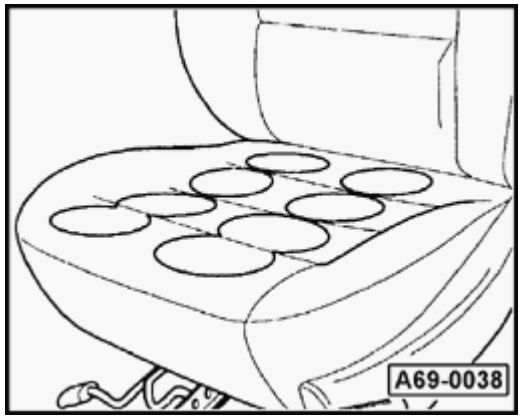
  ⇒ *Repair Manual, Body On Board Diagnostic (OBD), Repair Group 01* .

- Select Read Measuring Value Block (function

08) and input display group number 003

⇒ *Repair Manual, Body On Board Diagnostic (OBD), Repair Group 01* .

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:

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.

69-85

Crash sensor for side airbag, removing and installing

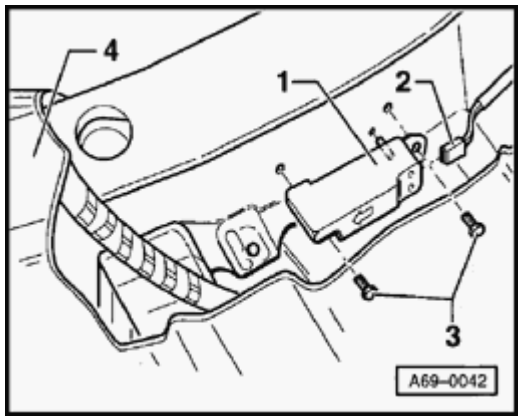
WARNING!

Before starting work on seats, connect VAS 5094 airbag adapter ⇒ ***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.*

69-86



Removing

- Disconnect battery Ground (GND) strap.
- Remove front seat ⇒ page 72-2 .
- Remove lower A-pillar trim ⇒ 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

- Switch ignition on.
- Close doors.

WARNING!

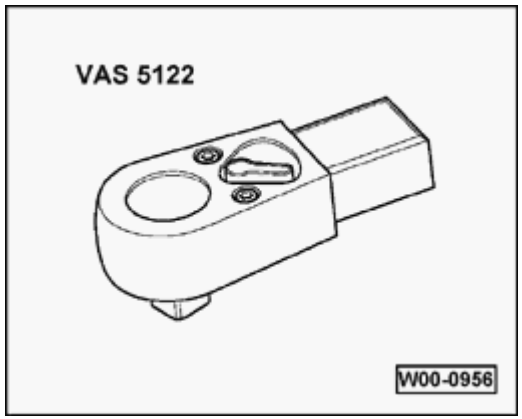
Make sure no one is in vehicle.

- Connect battery Ground (GND) strap.

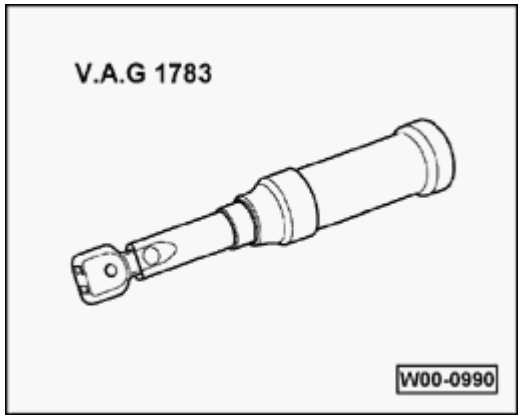
69-87

Side curtain protection airbag, servicing

Special tools and equipment

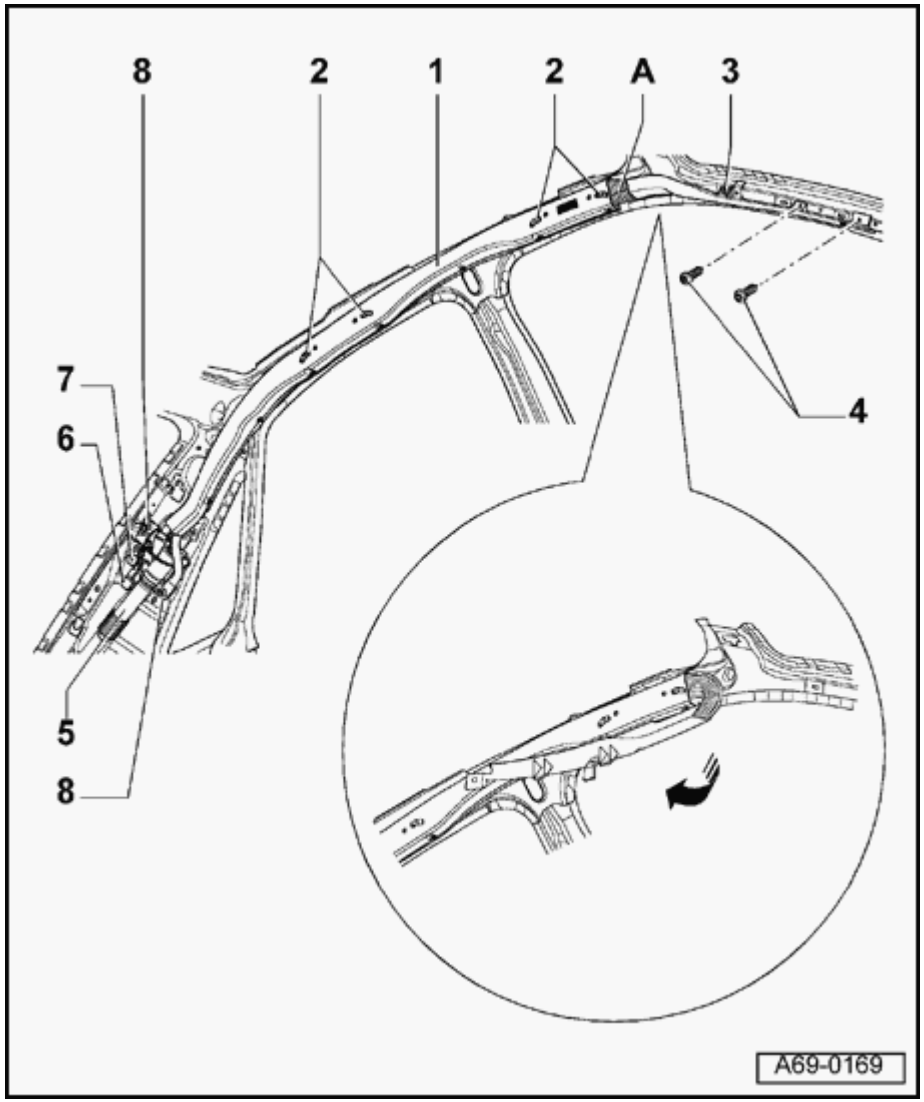


- VAS 5122



- VAG 1783

69-88



Side curtain protection airbag (sedan), removing and installing

WARNING!

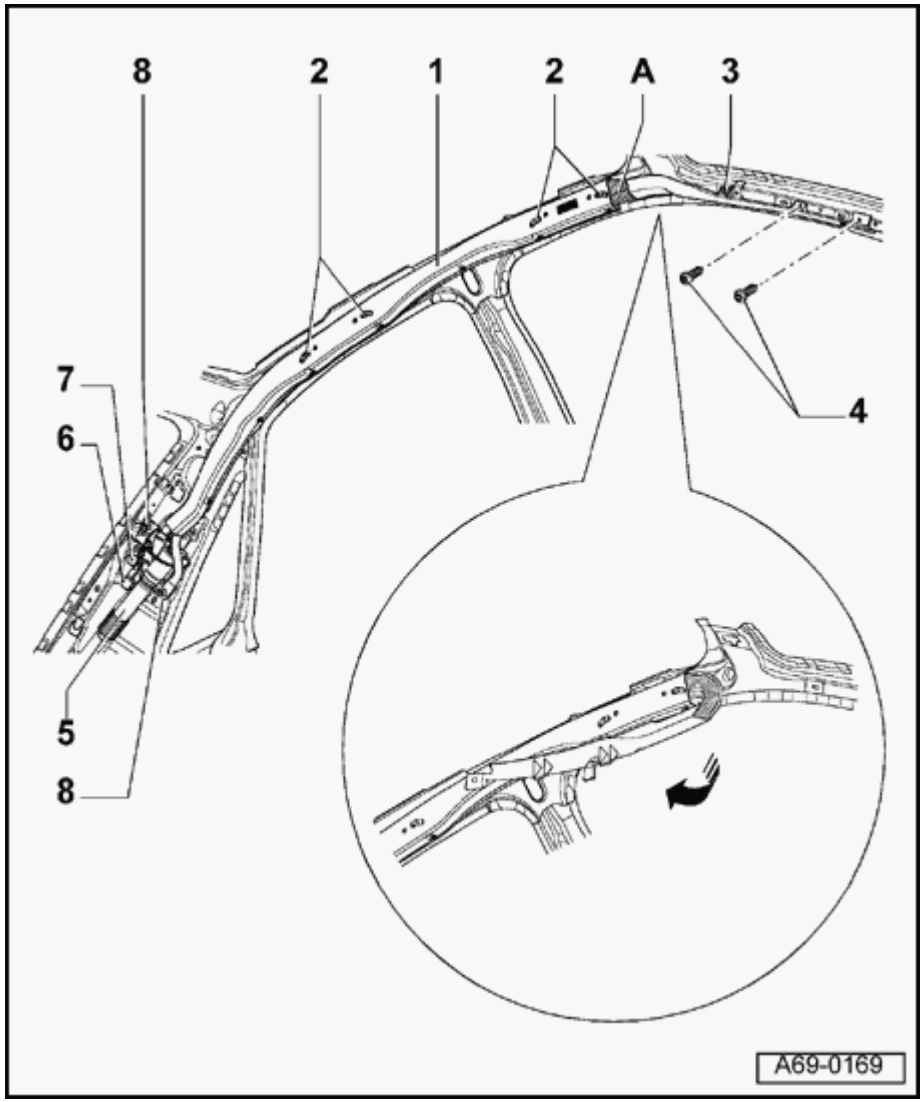
Follow all safety precautions when working on airbags ⇒ page 69-40 and side curtain airbag ⇒ page 69-49 .

1 - Side curtain airbag

Removing:

- Remove upper A-pillar trim panel ⇒ page 70-88 .
- Remove upper B-pillar trim without loosening seat belt ⇒ page 70-91 .
- Remove upper D-pillar trim ⇒ page 70-96 .
- 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 ⇒ Fig. 2 .
- Remove bolts - 8 - (2x).
- Remove igniter - 5 - at clip - 7 -.

69-89



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

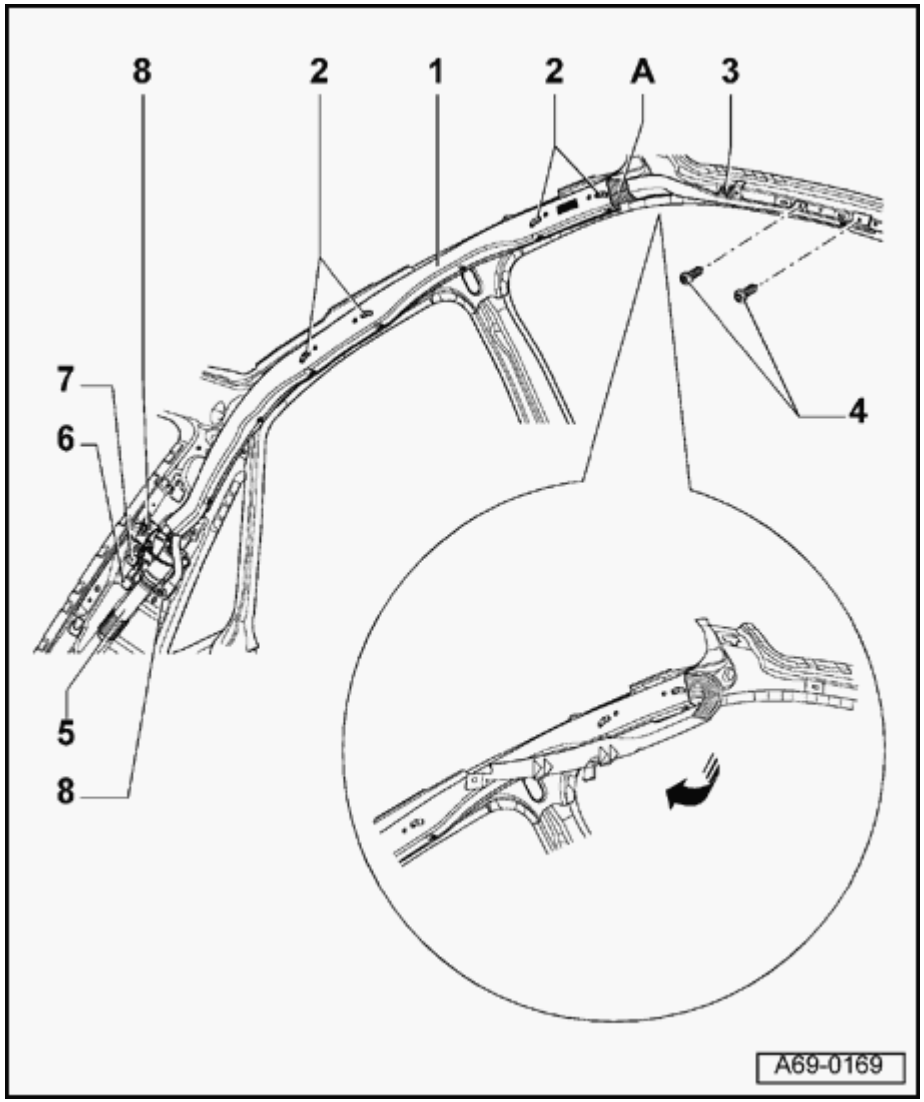
WARNING!

Make sure the passenger compartment is not

occupied before connecting the battery Ground (GND) strap.

- Connect battery.

69-90



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

69-91

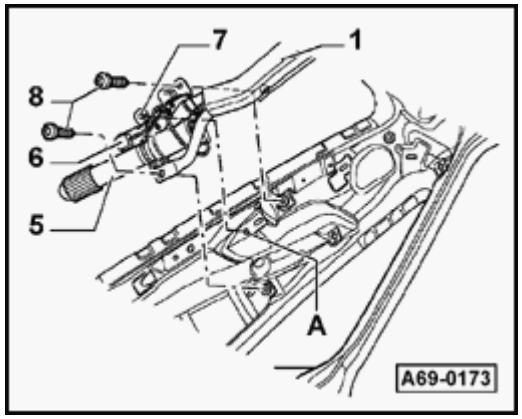


Fig. 1 Igniter at D-pillar

- 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

6 - Airbag connector

7 - Clip

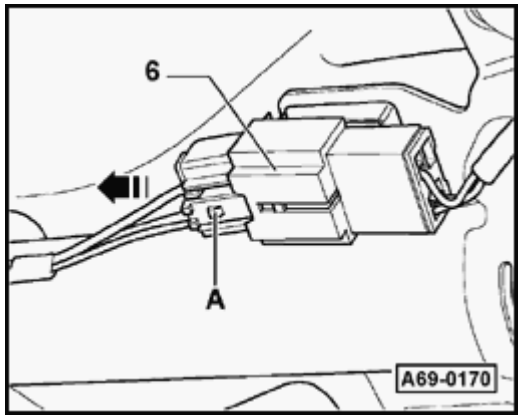


Fig. 2 Disconnecting harness connector for side curtain airbag

- Press catches -A- and disconnect harness connector in direction of arrow.

6 - Side curtain airbag harness connector

69-92

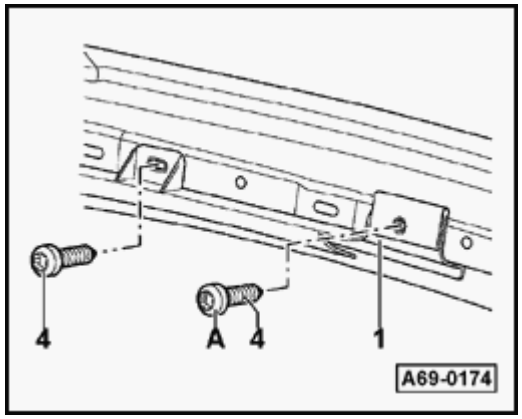


Fig. 3 Side curtain airbag at lower A-pillar

- Install lower bolt -A- first.

1 - Side curtain airbag

4 - Bolts (2x)

Tightening torque: 4 Nm (35 in. lb)

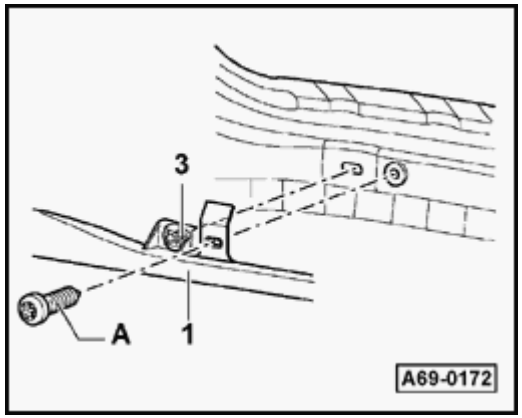


Fig. 4 Side curtain airbag at upper A-pillar

- Engage clip -3-.
- Bolt -A- must be attached along with A-pillar trim panel.

1 - Side curtain airbag

3 - Clip

69-93

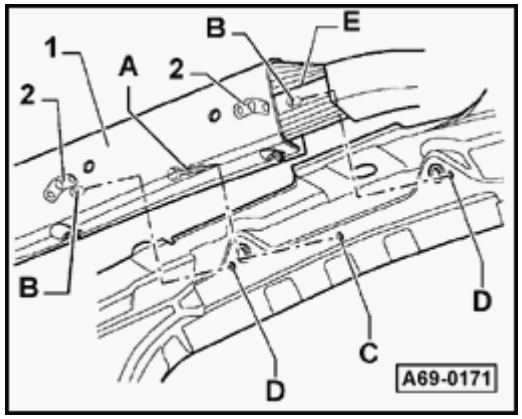


Fig. 5 Mounting side curtain airbag at roof grab handle

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

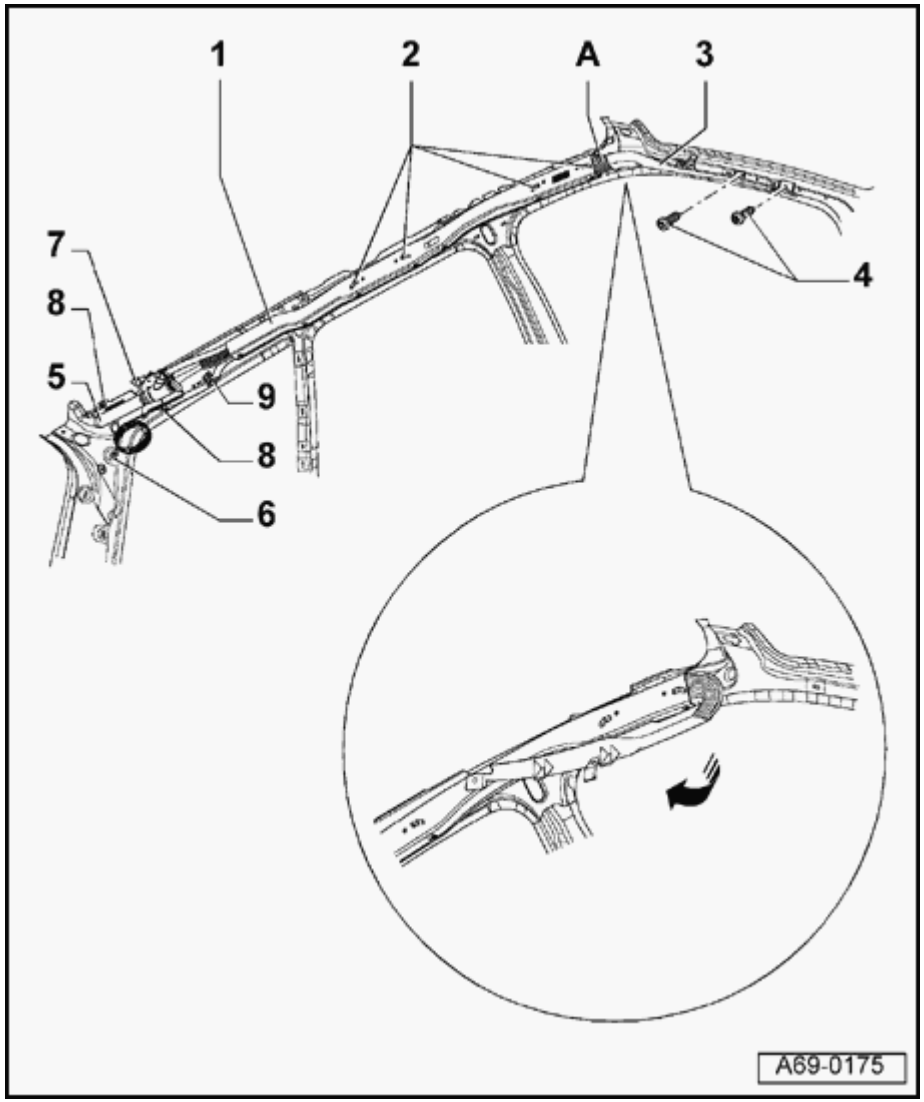
2 - Grip handle adapter, delivery casing airbag

Notes:

- *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.*

⇒ *Repair Manual, Body On Board Diagnostic (OBD), Repair Group 01*

69-94



Side curtain protection airbag (Avant), removing and installing

WARNING!

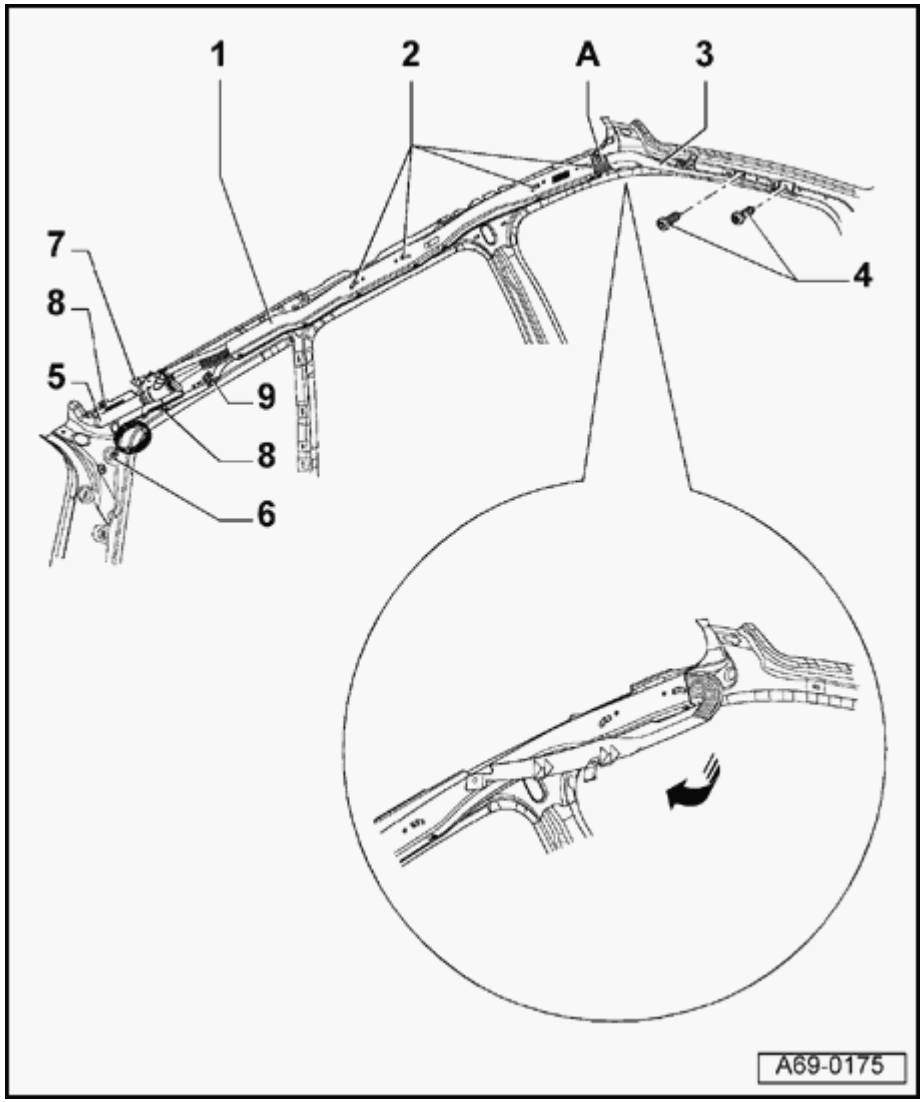
Follow safety precautions for working on airbags ⇒ page 69-40 and side curtain airbag ⇒ page 69-49 .

1 - Side curtain airbag

Removing:

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

69-95



- 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 ⇒ 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!

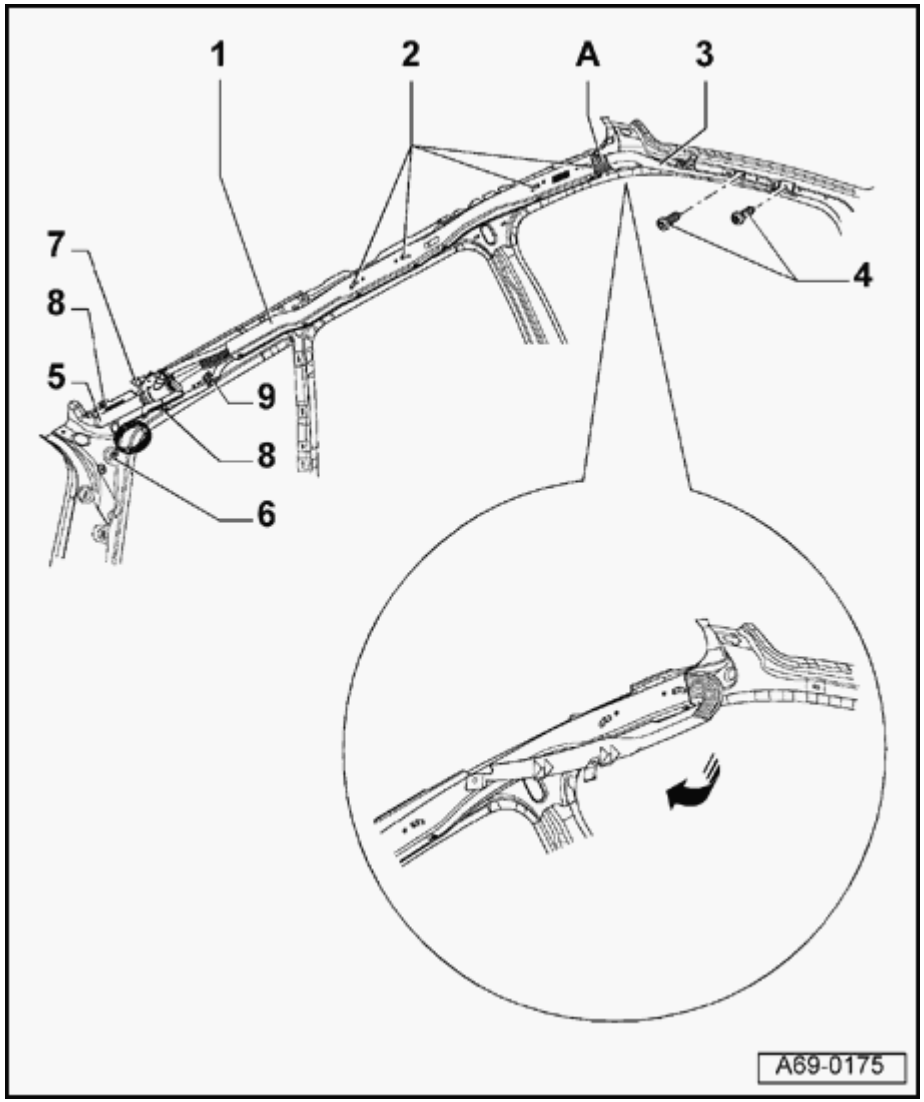
Always follow installation sequence for side curtain airbag.

Installing:

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

- Install bolts - 8 - (2x) ⇒ Fig. 1 .

69-96



- Release front portion of airbag - 1 - and fold it back to A-pillar, during this, twist-securing seam -A- must face center of vehicle.
- Clip in side curtain airbag using clip - 3 - ⇒ Fig. 4 .
- Install bolt -4- ⇒ 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

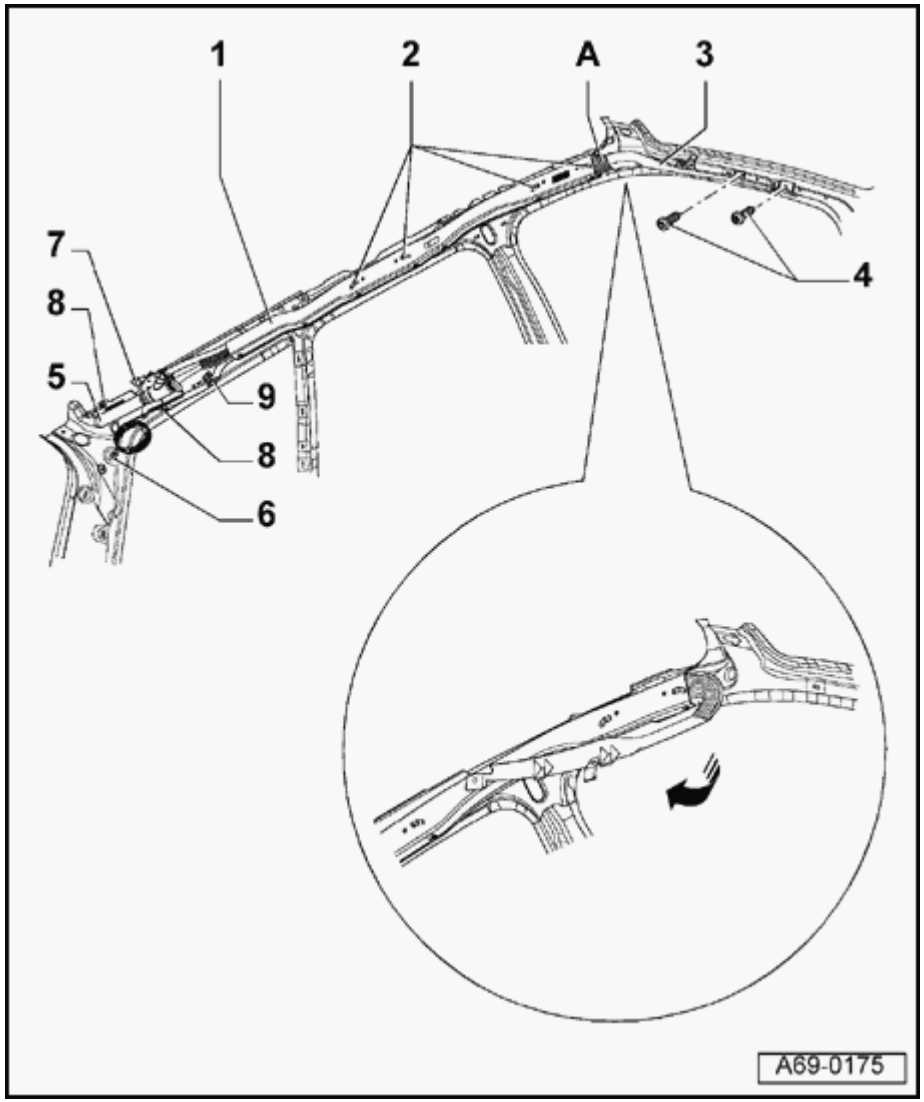
3 - Clip

4 - Bolts (2x)

- 4 Nm (35 in. lb)
- Self-locking
- Always replace
- Always clean threaded holes for drive

flange bolts (e.g. using tap)

69-97



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

69-98

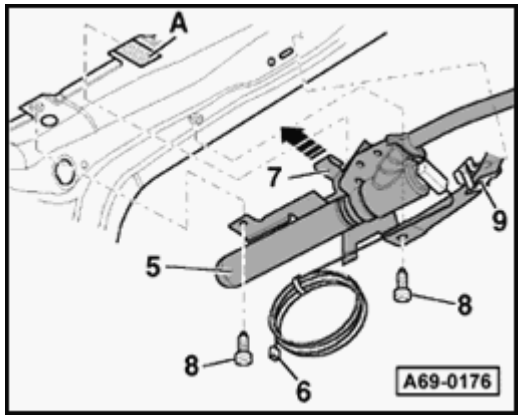


Fig. 1 Igniter at D-pillar

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

5 - Igniter

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

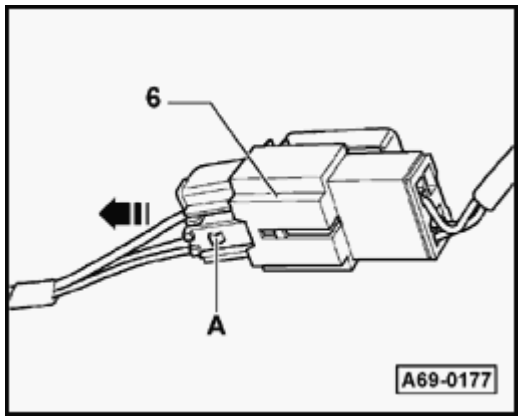


Fig. 2 Disconnecting harness connector for side curtain airbag

- Press catches -A- and disconnect harness connector in direction of arrow.

6 - Side curtain airbag harness connector

69-99

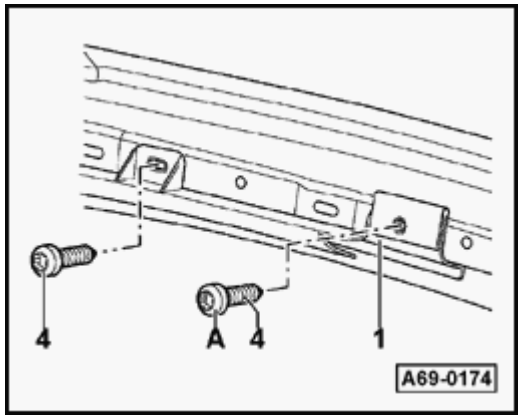


Fig. 3 Side curtain airbag at lower A-pillar

- Install lower bolt -A- first.

1 - Side curtain airbag

4 - Bolts (2x)

Tightening torque: 4 Nm (35 in. lb)

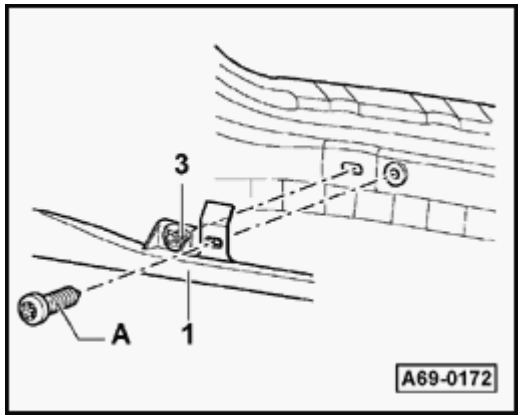


Fig. 4 Side curtain airbag at upper A-pillar

- Engage clip -3-
- Bolt -A- must be attached along with A-pillar trim panel.

1 - Side curtain airbag

3 - Clip

69-100

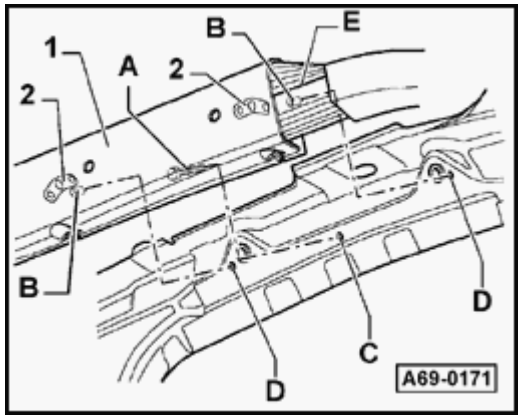


Fig. 5 Mounting side curtain airbag at roof grab handle

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

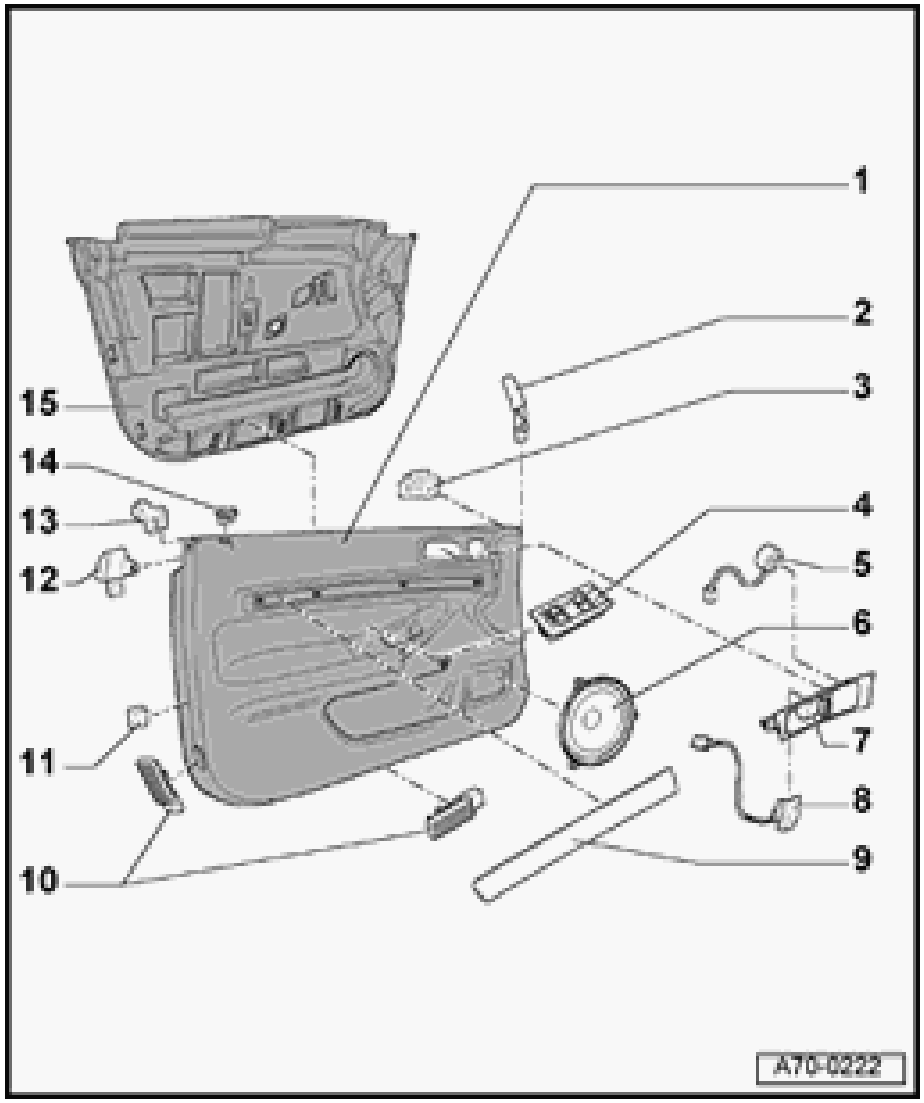
2 - Grip handle adapter, delivery casing airbag

Notes:

- *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.*

⇒ *Repair Manual, Body On Board Diagnostic (OBD), Repair Group 01*

70-1



Front door trim

Component locations, overview

1 - Door trim

- Removing ⇒ page 70-3

2 - Outer connecting piece

3 - Outer filler piece

4 - Power window switch insert

- Driver-side ⇒ page 70-9
- Passenger-side ⇒ page 70-10

5 - Speaker (tweeter)

- Removing ⇒ page 70-17

6 - Speaker (woofer)

- Removing ⇒ page 70-16

7 - Interior door handle

- Removing ⇒ page 70-19

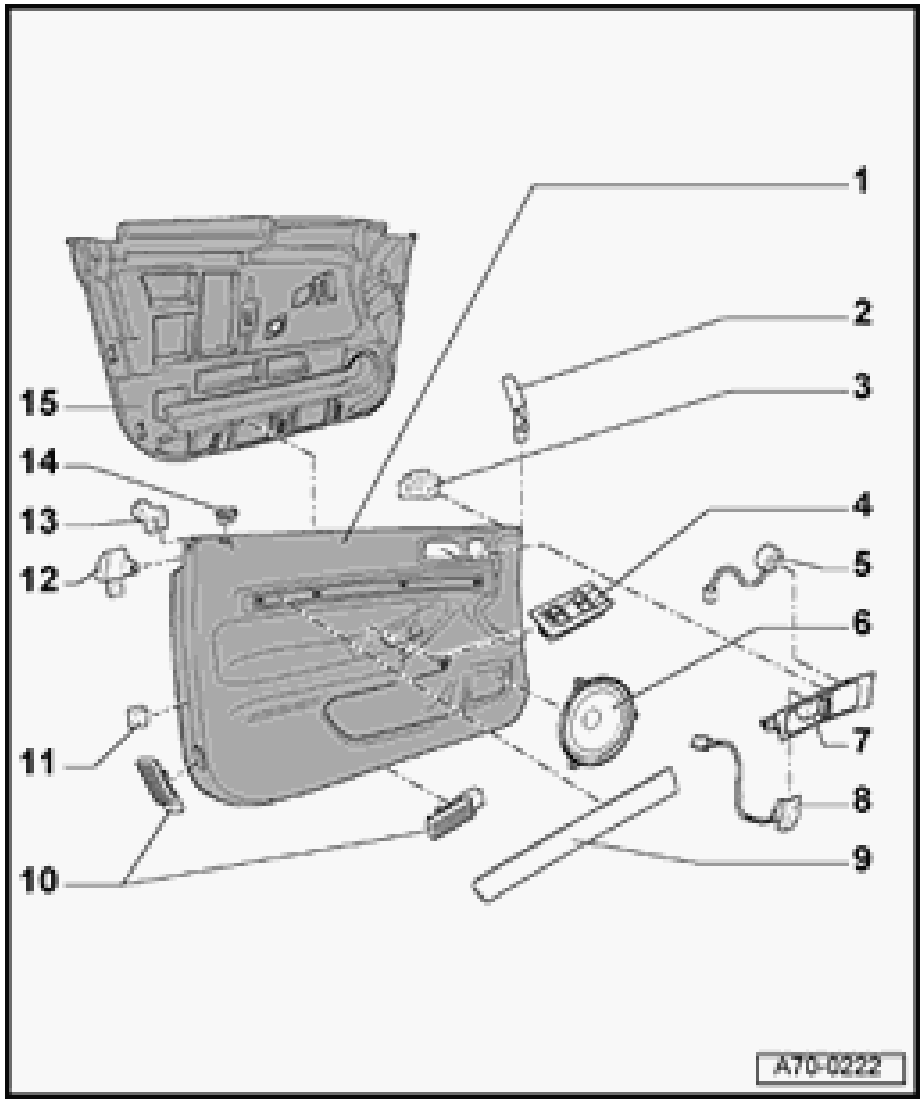
8 - Central door locking switch

- Driver-side only
- Removing ⇒ page 70-15

9 - Trim

- Removing ⇒ page 70-18

70-2



10 - Door warning and footwell lights

- Removing and installing ⇒ page 70-33

11 - Detent notch base

12 - Inner connecting piece

13 - Inner filler piece

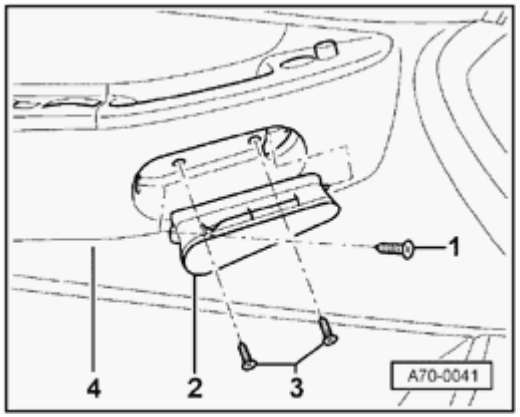
14 - Door knob guide

15 - Front door trim insulation

- Removing and installing ⇒ page 70-5

70-3

Front door trim, removing and installing

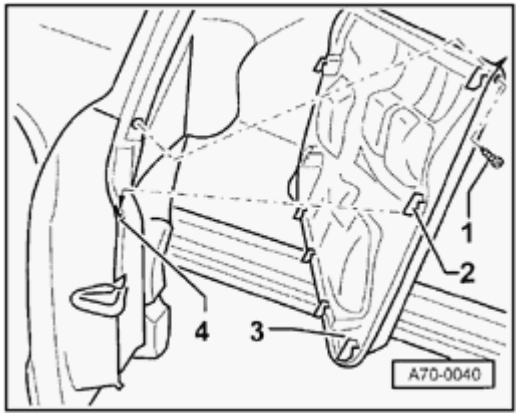


- Remove bolt -1-.

  Tightening torque: 1.5 Nm (13 in. lb)
- Pull handle shell -2- downward out of door trim -4-.
- Remove bolts -3- (2x).

  Tightening torque: 2.5 Nm (22 in. lb)

Vehicles with manual window crank ⇒ page 70-6 .



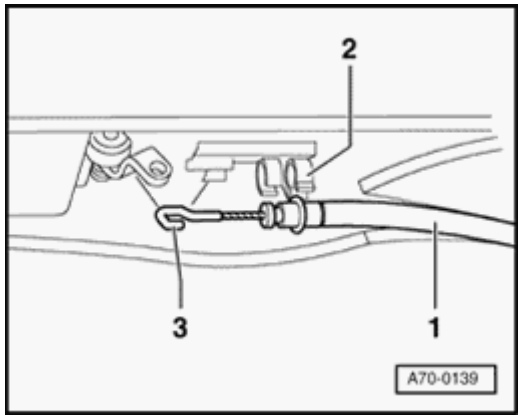
- Remove bolts -1- (2x).

  Tightening torque: 1.5 Nm (13 in. lb)
- Lift door trim -3- up and out of door shell.
- To install, bases -4- for detent notches -2- (7x) must be installed.

Note:

The Bowden cable for the inside door mechanism and the electrical harness connectors are not disconnected until after removing door trim -3- .

70-4



- Pull Bowden cable -1- out of guide -2- and remove.

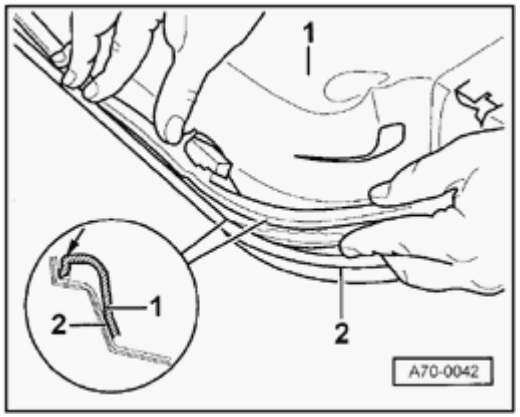
Note:

When installing make sure that hook -3- faces upward.

- Disconnect electrical harness connectors.

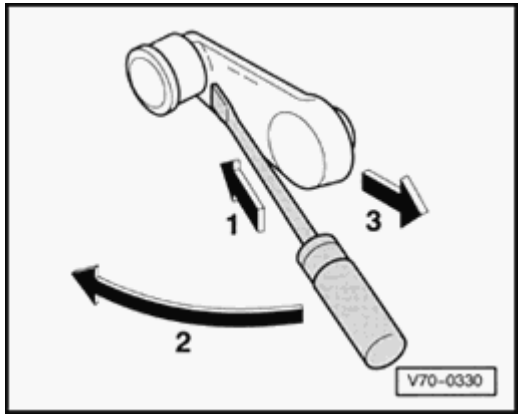
70-5

Front door trim insulation, removing and installing

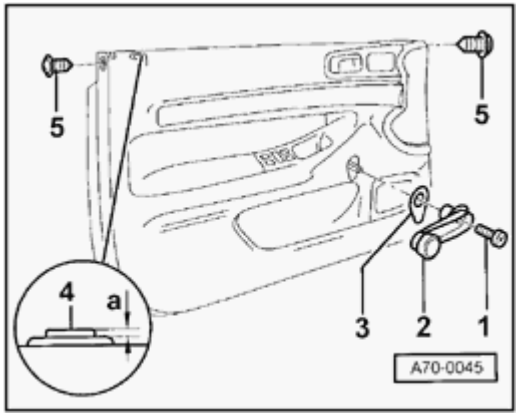


- Insulation -1- must be inserted into door trim -2- all around.
- When removing or installing insulation -1-, ensure that insulation is not damaged when installing it over retaining tabs or electrical harness connectors.

Front manual window cranks, removing and installing

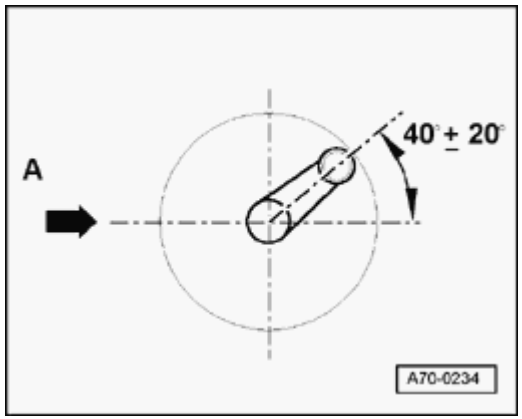


- Press in flat side of flat-head screwdriver in direction of arrow -1-.
- Rotate flat-head screwdriver in direction of arrow -2-.
- Pull off cover in direction of arrow -3-.



- Remove bolt -1-.

  Tightening torque: 2.5 Nm (22 in. lb)
- Remove manual window crank -2- and base -3-.



Front door manual window crank installation position

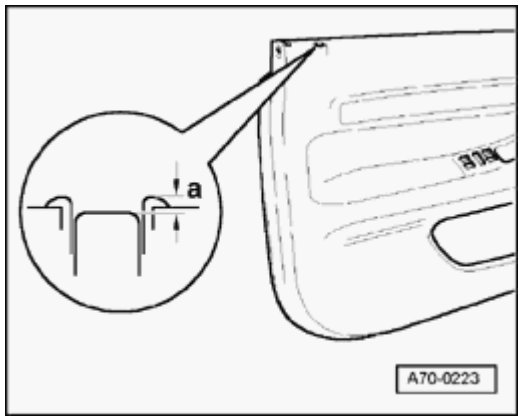
Illustration shows left manual window crank (right side is mirror of left).

A - Driving direction

Installation position shown: window closed

70-8

Release button, adjusting



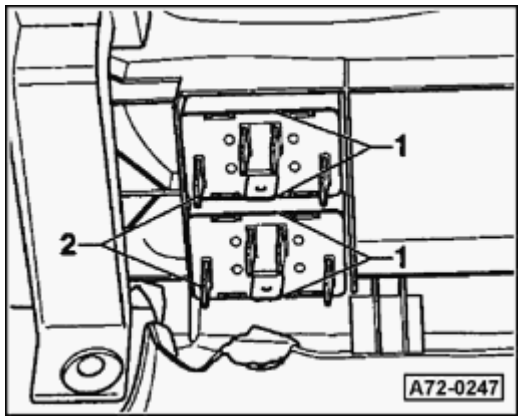
- When locked, release lever must not project more than dimension -a-.

  Dimension -a-: 0-2 mm countersunk

70-9

Driver-side power window switches, removing and installing

- Remove door trim ⇒ page 70-3 .
- Remove insulation ⇒ page 70-5 .
- Remove vapor barrier ⇒ page 70-12 .



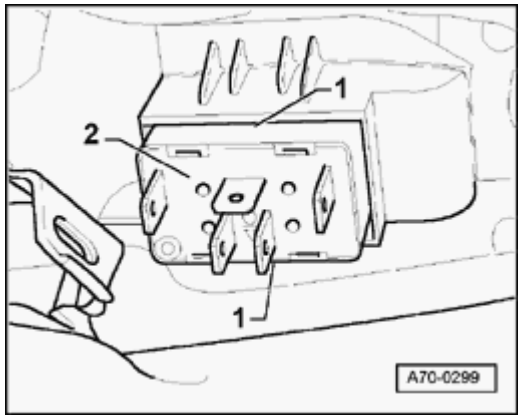
- Use screwdriver to remove retaining tabs -1-.
- Remove power window switches -2-.

70-10

Passenger-side power window switch, removing and installing

- Remove door trim ⇒ page 70-3 .

- Remove insulation ⇒ page 70-5 .

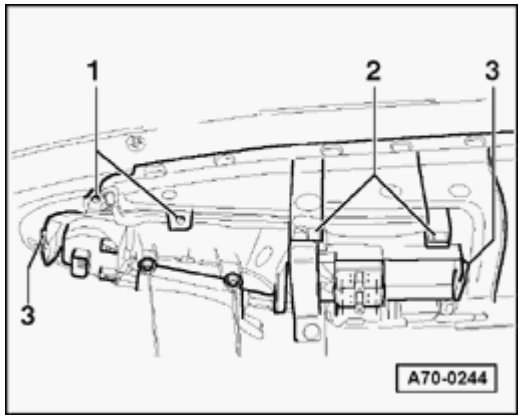


- Use screwdriver to release retaining tabs -1-.
- Remove power window switches -2-.

70-11

Grip handle cover with power window switch unit and power mirror switch, removing and installing

- Remove door trim ⇒ page 70-3 .
- Remove insulation ⇒ page 70-5 .
- Remove vapor barrier ⇒ page 70-12 .



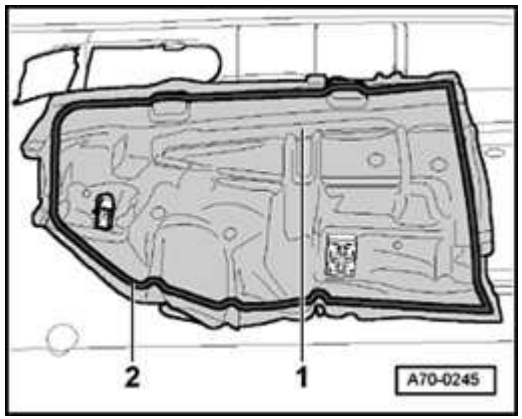
- Remove bolts -1- (2x).

  Tightening torque: 1.5 Nm (13 in. lb)
- Release retaining tabs -2- (2x) and clips -3- (2x).
- Remove grip handle cover forward.

Vapor barrier, removing

- Remove door trim ⇒ page 70-3 .

- Remove insulation ⇒ page 70-5 .

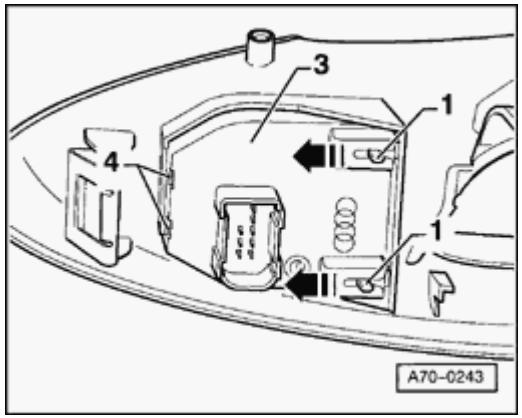


- To install, press in vapor barrier -1- in area of adhesive bead -2-.
- Push power window electrical harness connectors through vapor barrier.

Power mirror switch, removing and installing

- Remove door trim ⇒ page 70-3 .

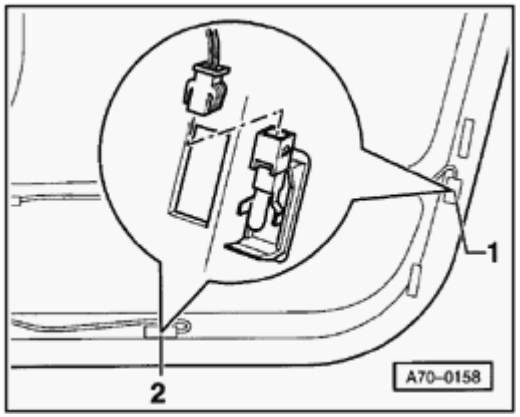
- Remove grip handle cover ⇒ page 70-11 .



- Press pins -1- (2x) in direction of arrow.
- Remove retaining tabs -2-.
- Remove power mirror switch -3-.

70-14

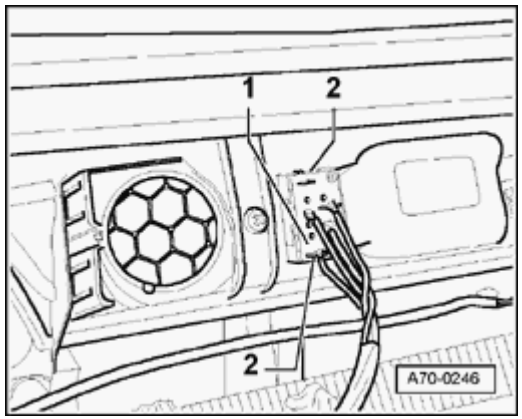
Door warning light and footwell lights, removing and installing



- Detach door warning light -1- from below using screwdriver and remove toward outside together with cable.
- Disconnect door warning light -1-.
- Detach footwell lighting -2- from front using screwdriver and remove toward outside together with cable.
- Disconnect footwell lighting -2-.

70-15

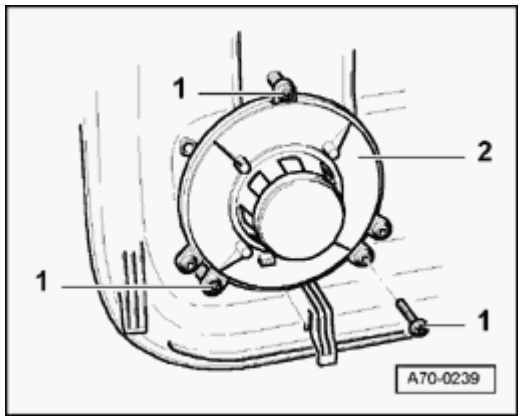
Central door locking switch, removing



- Remove door trim ⇒ page 70-3 .
- Remove insulation ⇒ page 70-5 .
- Using screwdriver, detach retaining tabs (2x) and remove central door locking switch toward rear.

70-16

Bass speaker, removing



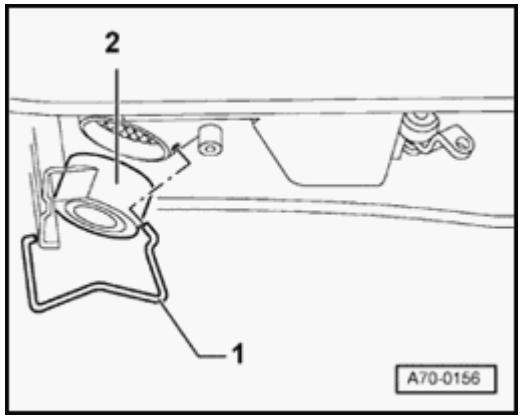
- Remove door trim ⇒ page 70-3 .
- Remove insulation ⇒ page 70-5 .
- Remove bolts -1- (3x).

  Tightening torque: 1.5 Nm (13 in. lb)
- Remove bass speaker -2-.

70-17

Tweeter, removing and installing

- Remove door trim ⇒ page 70-3 .
- Remove insulation ⇒ page 70-5 .
- Pull wiring from door trim up to bass speaker.
- Remove interior door handle ⇒ page 70-19 .

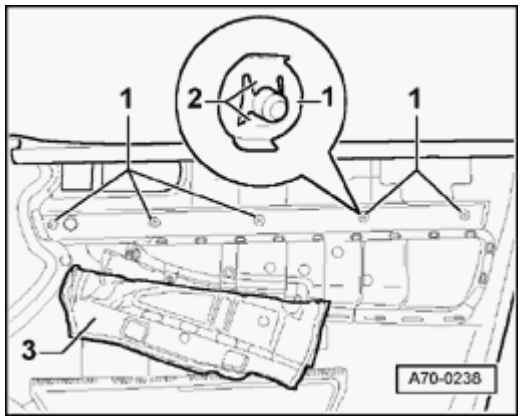


- Using screwdriver, detach bracket -1-.
- Remove tweeter -2-.

70-18

Trim panel in door trim, removing

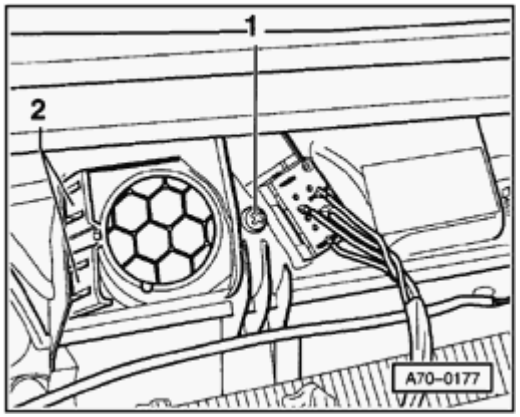
- Remove door trim ⇒ page 70-3 .
- Remove insulation ⇒ page 70-5 .



- Pull vapor barrier -3- down in area of trim.
- Carefully open clips -2- of clips -1-.
- Remove trim panel.

Interior door handle, removing

- Remove door trim ⇒ page 70-3 .
- Remove tweeter ⇒ page 70-17 .
- Remove central door locking switch (driver-side only) ⇒ page 70-15 .

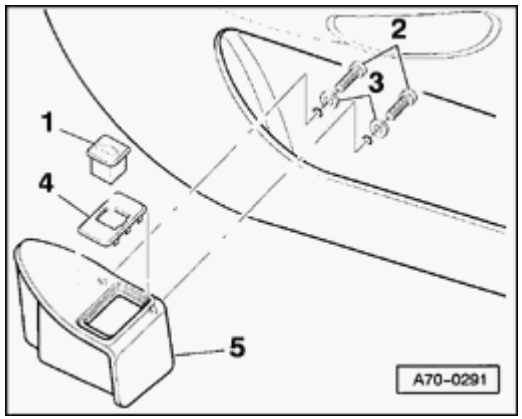


- Remove bolt -1-.
- Press retaining tabs -2- (2x) and remove interior door handle toward front.

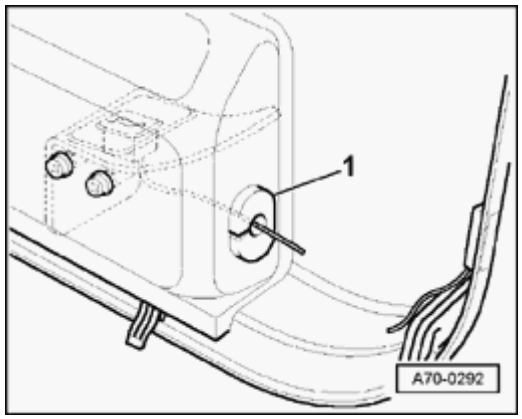
70-20

Console and trunk release switch, removing

- Remove door trim ⇒ page 70-3 .



- Remove bolts -2- (2x).
- Remove console -5-.
- Disconnect harness connector from switch -1-.
- Remove trim panel -4- together with switch -1-.

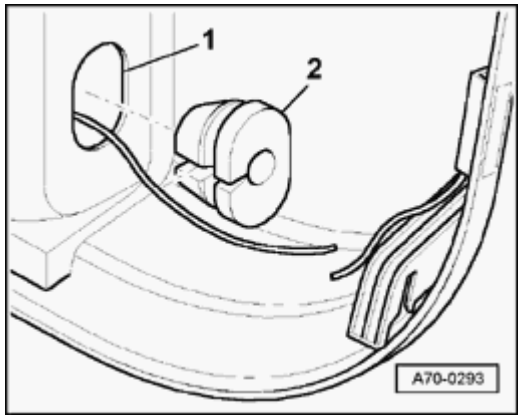


- Remove grommet -1-.

70-21

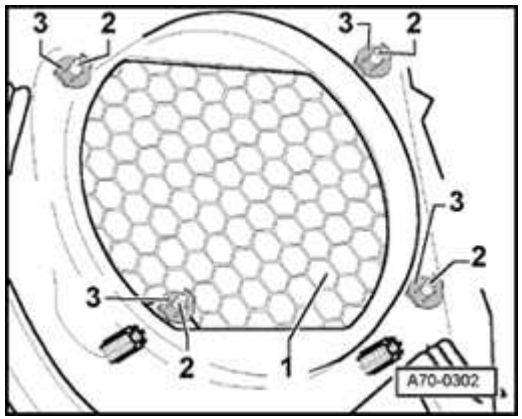
Door trim for trunk release switch, cutting out

The area to be cut out -1- is indicated on door trim.



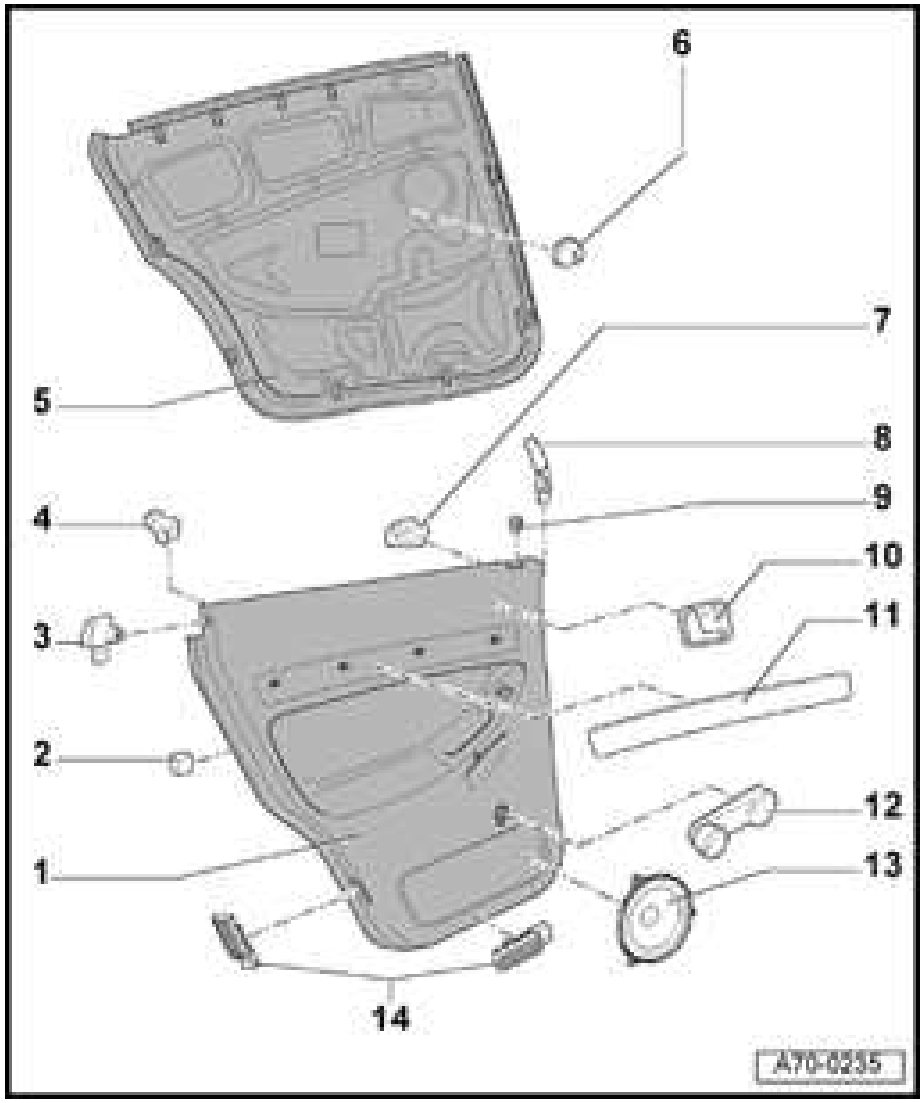
- Cut out area using available tools.
- Install grommet -2-.

Switching speaker trim (Normal, Bose)



- Drill out old speaker trim -1- at -2- (4x).
- Insert speaker trim -1- from front and secure speaker trim -1- with clips -3- (4x).

70-23



Rear door trim

Component locations, overview

1 - Door trim

- Removing installing ⇒ page 70-25

2 - Clip locator

3 - Outer connecting piece

4 - Outer filler piece

5 - Rear door trim insulation

- ⇒ page 70-37

6 - Foam seal

7 - Inner filler piece

8 - Inner connecting piece

9 - Guide for locking knob

10 - Interior door handle

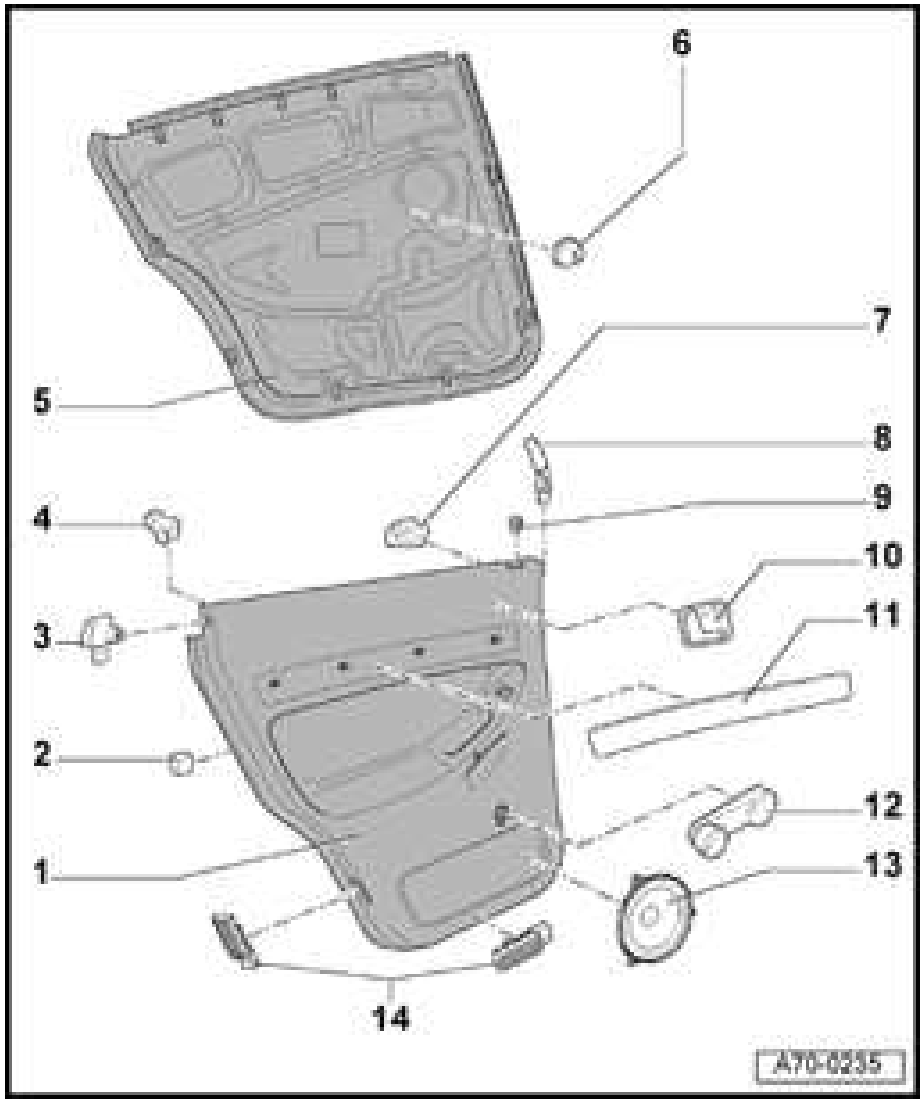
- Removing ⇒ page 70-27

11 - Trim panel

- Removing ⇒ page 70-36

12 - Window crank handle

70-24



13 - Speaker (woofer)

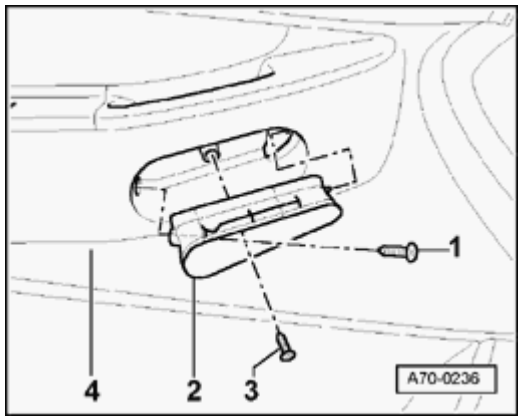
- Removing ⇒ page 70-16

14 - Door warning and footwell lights

- Removing ⇒ page 70-33

70-25

Rear door trim, removing and installing

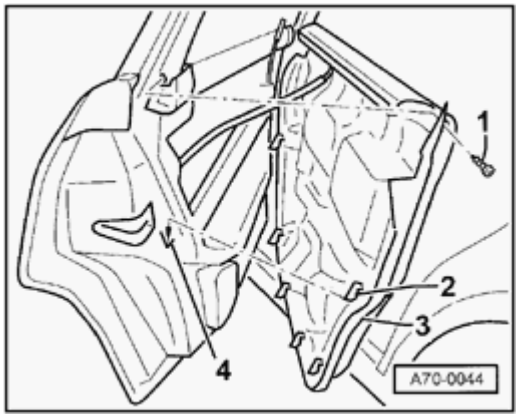


- Remove bolt -1-.

  Tightening torque: 1.5 Nm (13 in. lb)
- Pull handle shell -2- downward out of door trim -4-.
- Remove nut -3- (1x).

  Tightening torque: 2.5 Nm (22 in. lb)

Vehicles with manual window crank ⇒ page 70-28 .

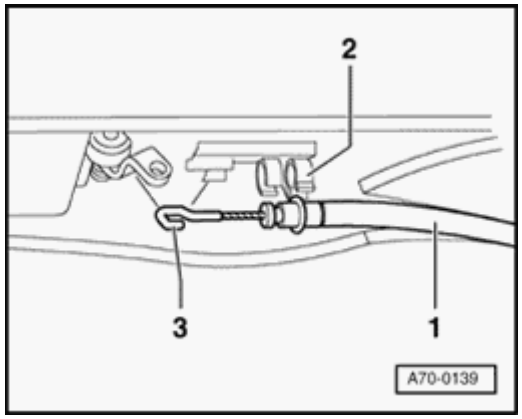


- Remove bolts -1- (2x).

  Tightening torque: 1.5 Nm (13 in. lb)
- Lift door trim -3- up and out of door shell.
- To install, bases -4- for detent notches -2- (7x) must be fully installed.

Note:

The Bowden cable for the inside door mechanism and the electrical harness connectors are not disconnected until after removing door trim -3- .



- Pull Bowden cable -1- out of guide -2- and remove.

Note:

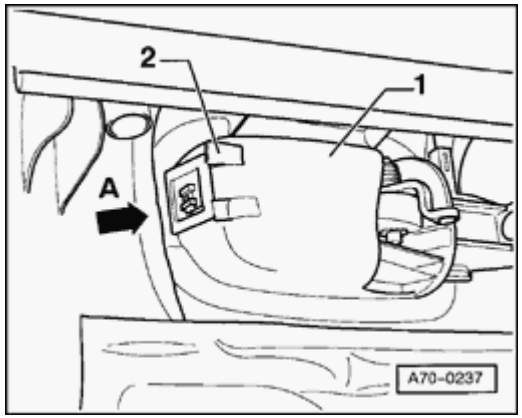
When installing, make sure that hook -3- faces upward.

- Disconnect electrical harness connectors.

70-27

Interior door handle, removing

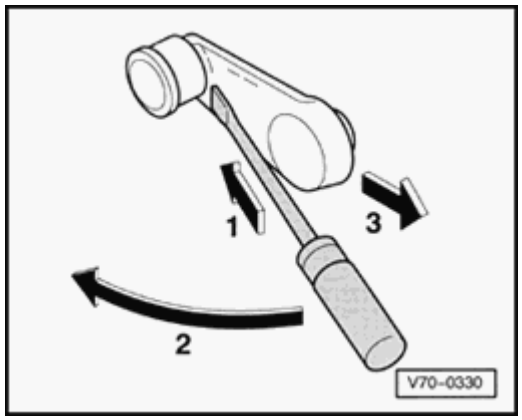
- Remove door trim ⇒ page 70-25 .



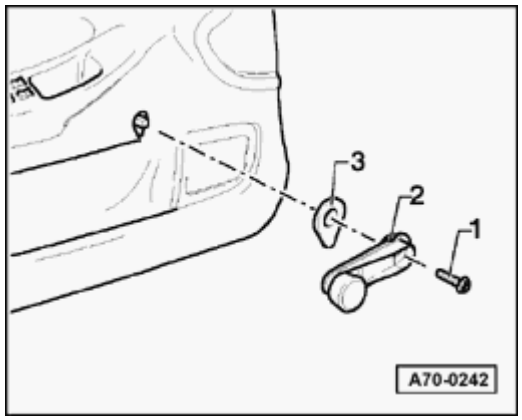
- Press spring -2- in direction of arrow -A- and remove interior door handle -1- toward front.

70-28

Rear manual window crank, removing and installing

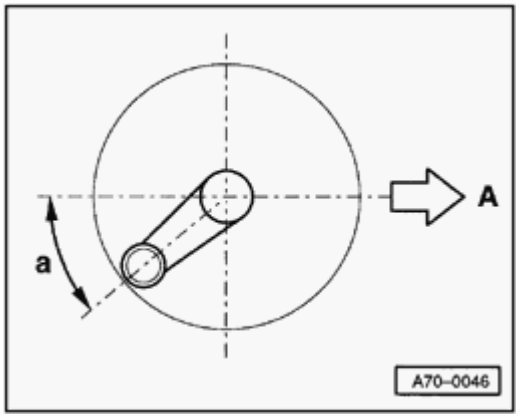


- Press in flat side of flat-head screwdriver in direction of arrow -1-.
- Rotate flat-head screwdriver in direction of arrow -2-.
- Pull off cover in direction of arrow -3-.



- Remove bolt -1-.

  Tightening torque: 2.5 Nm (22 in. lb)
- Remove manual window crank -2- and base -3-.



Rear door manual window crank installation position

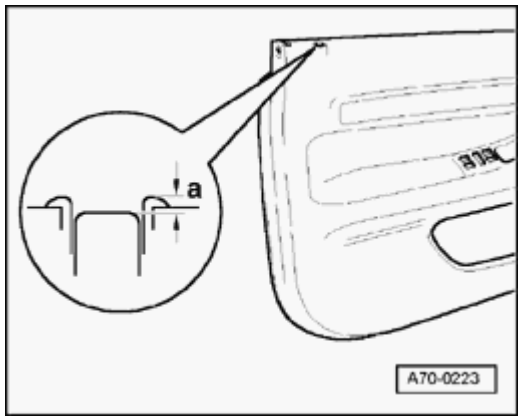
Illustration shows left manual window crank (right-side is mirror of left).

A - Driving direction

a - Installation position with window closed, at 40° ± 20° angle toward rear.

70-30

Release button, adjusting



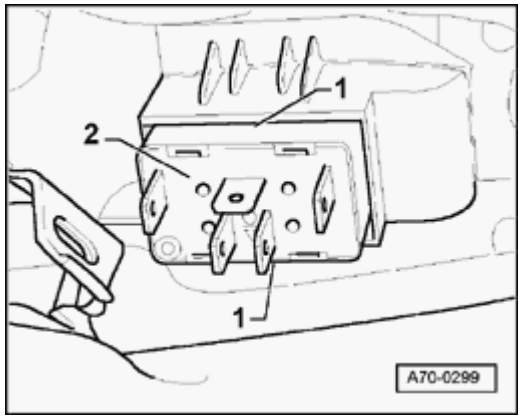
- When locked, release lever must not project more than dimension -a-.

  Dimension -a-: 0-2 mm countersunk

Power window switch, removing and installing

- Remove door trim ⇒ page 70-25 .

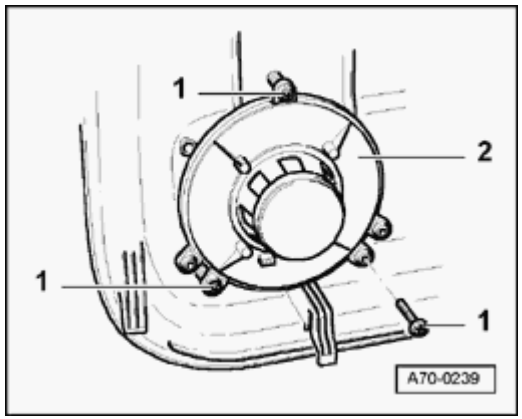
- Remove insulation ⇒ page 70-37 .



- Use screwdriver to remove retaining tabs -1-.
- Remove power window switches -2-.

70-32

Bass speaker, removing

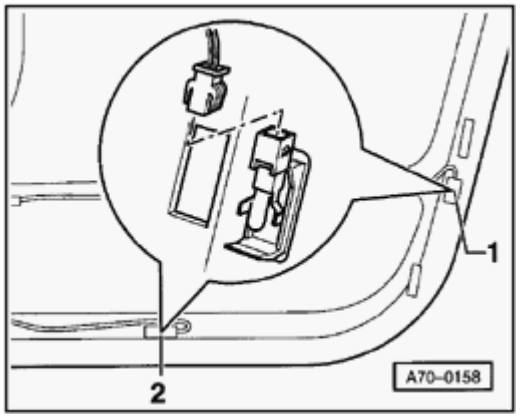


- Remove door trim ⇒ page 70-25 .
- Remove insulation ⇒ page 70-37 .
- Remove bolts -1- (3x).

  Tightening torque: 1.5 Nm (13 in. lb)
- Remove bass speaker -2-.

70-33

Door warning light and footwell lights, removing and installing



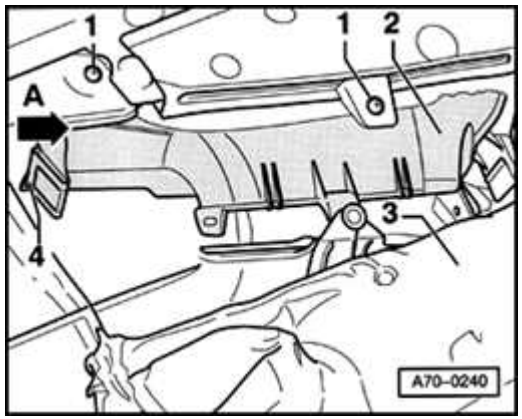
- Detach door warning light -1- from below using screwdriver and remove toward outside together with cable.
- Disconnect door warning light -1-.
- Detach footwell lights -2- from front using screwdriver and remove toward outside together with cable.
- Disconnect footwell lights -2-.

Grip handle cover with power window switch unit, removing and installing

- Remove door trim ⇒ page 70-25 .

- Remove insulation ⇒ page 70-37 .

- Pull vapor barrier -3- down in area of trim.



- Remove bolts -1- (2x).

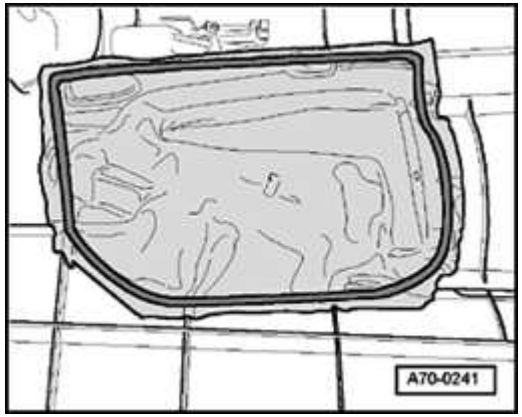
  Tightening torque: 1.5 Nm (13 in. lb)

- Press both sides of spring -4- in direction of arrow -A-, and remove grip handle cover -2-.

Vapor barrier, removing

- Remove door trim ⇒ page 70-25 .

- Remove insulation ⇒ page 70-37 .



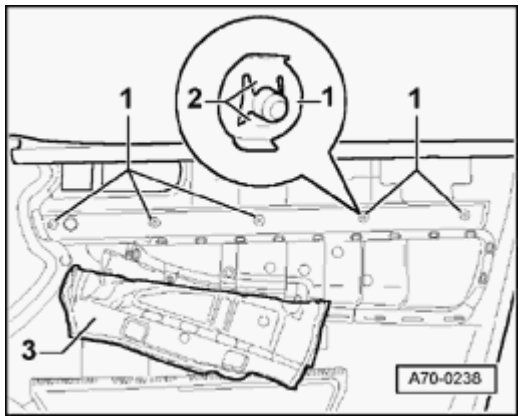
- To install, press in vapor barrier -1- in area of adhesive bead -2-.
- Push power window electrical harness connectors through vapor barrier.

70-36

Tim panel in door trim, removing

- Remove door trim ⇒ page 70-25 .

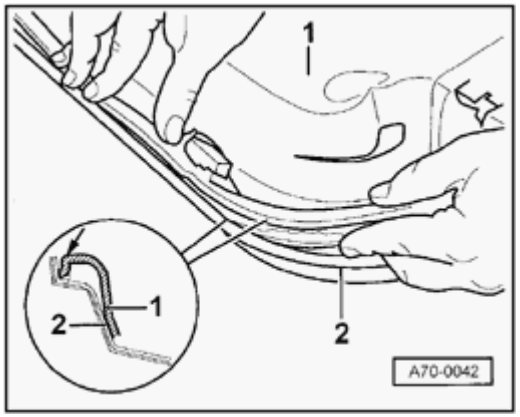
- Remove insulation ⇒ page 70-37 .



- Pull vapor barrier -3- down in area of trim.
- Carefully open clips -2- of clips -1-.
- Remove trim panel.

70-37

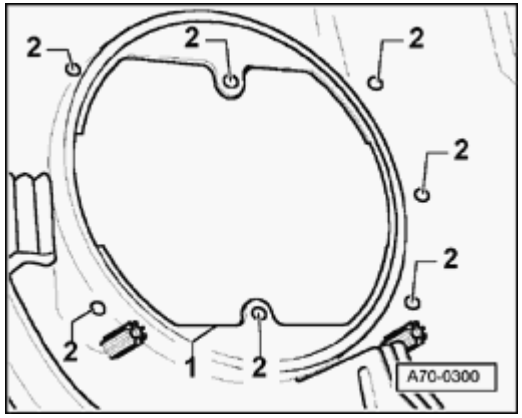
Rear door trim insulation, removing and installing



- Insulation -1- must be inserted into door trim -2- all around.
- When removing or installing insulation -1-, ensure insulation is not damaged when installing it over retaining tabs or electrical harness connectors.

70-38

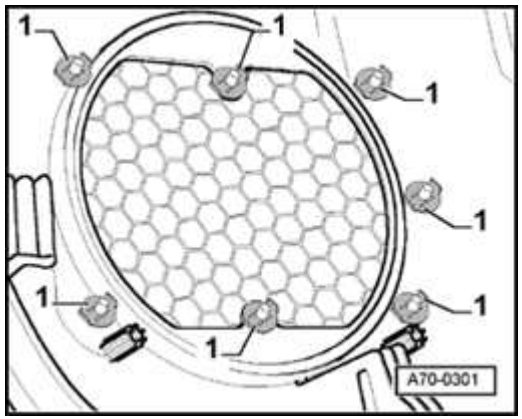
Door trim replacement panel for speaker, cutting out



- Cut out trim at marking -1- using available tools.
- Drill trim at -2- (7x) using 5 mm drill bit.

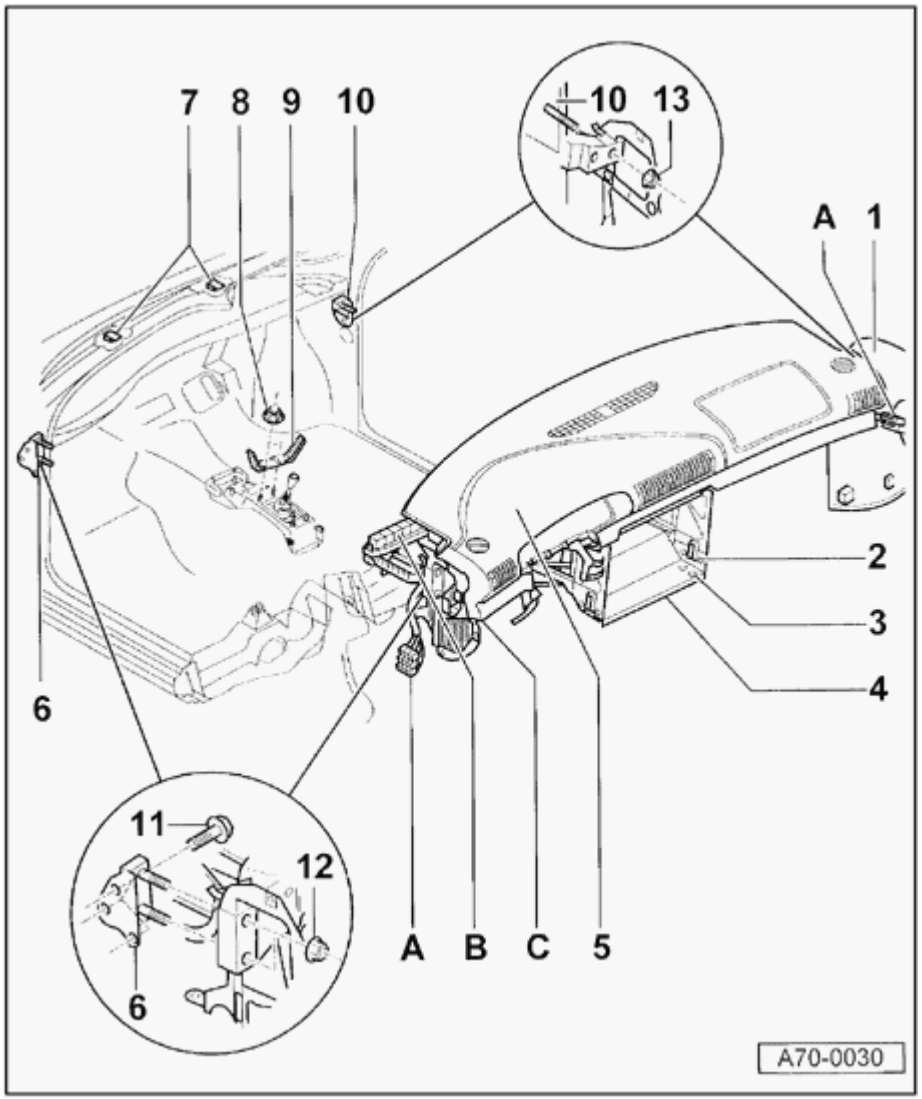
70-39

Speaker trim, installing



- Insert speaker trim from front and secure speaker trim with clips -1- (7x).

70-40



Instrument panel

Instrument panel (with cross member), removing and installing

1 - Cap for instrument panel (2x)

- Unclip cap

2 - Bolt (4x)

- 12 Nm (9 ft lb)

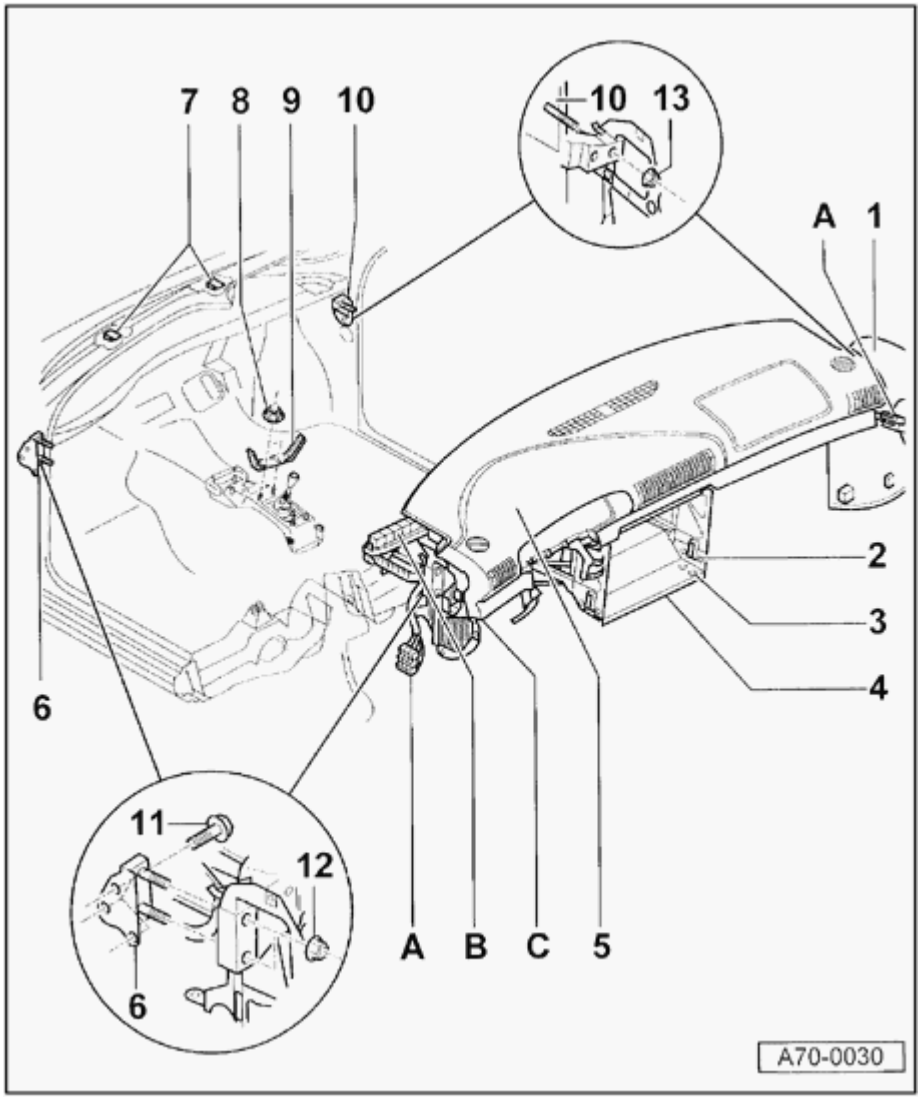
3 - Bolt (4x)

- 12 Nm (9 ft lb)

4 - Bracket

- Remove bolts -2- and -3-.

70-41



5 - Instrument panel with cross member

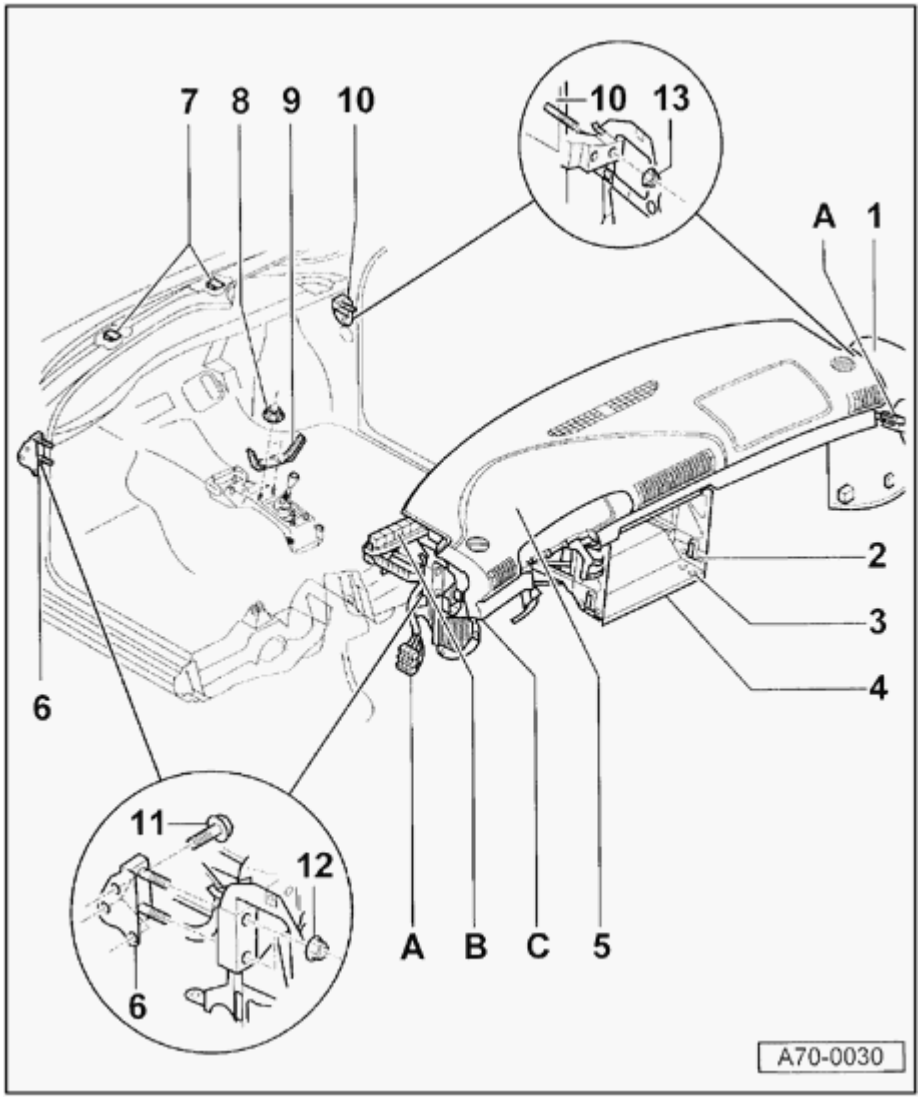
Removing:

- Position windshield wipers to upper-most position.
- Remove steering column brace ⇒ Fig. 2 .
- Remove steering wheel ⇒ page 69-57 .
- Remove driver-side airbag unit ⇒ page 69-54 .
- Remove driver-side knee bolster ⇒ page 68-8 .
- Remove passenger-side knee bolster ⇒ page 68-1 .
- Remove rear center console ⇒ page 68-13 .
- Remove front center console ⇒ page 68-30 .
- Remove instrument panel center piece ⇒ page 68-31 .
- Remove airbag control module ⇒ page 69-74 .
- Disconnect left and right-rear heating ducts in floor well.
- Disconnect coolant hoses and A/C lines (evacuate refrigerant).

⇒ *Repair Manual, Heating & Air Conditioning, Repair Group 87*

- Remove rubber grommet.
- Remove lower A-pillar trim ⇒ page 70-72 .

70-42



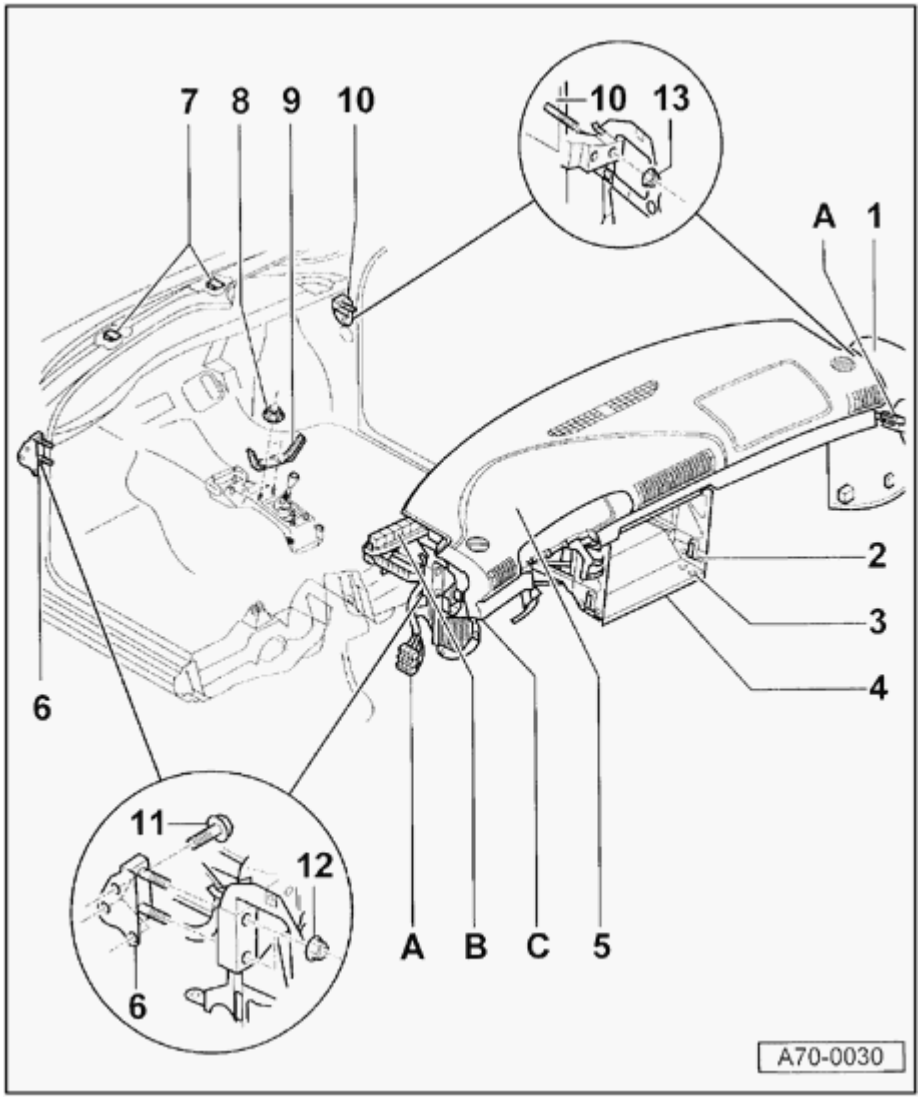
- Disconnect wiring at connector stations in left and right A-pillars (item -A-).
- Disconnect electrical harness connectors in item -B-.

⇒ *Repair Manual, Electrical Equipment, Repair Group 97.*

- Disconnect positive wiring at relay station (item -C-).
- Disconnect negative connection (item -C-).
- Disconnect wiring in area of center tunnel.
- Disconnect electrical and vacuum connections for brake light switch and cruise control system at pedal assembly.
- Remove bolts -2- and -3- as well as bracket -4-.
- Remove nuts -8- and bracket -9-.
- Disconnect pedal assembly from instrument panel cross member ⇒ Fig. 1 .
- Disconnect lower part of steering column from steering gear and secure ⇒ Fig. 1 .
- Remove nuts -12- and -13-.

- Cover both seats to protect them from damage.
- Pull instrument panel forward and pull out clips -7- with help from second technician.

70-43



Installing:

- Installation is the reverse of removal

Adjusting:

- Instrument panel with cross member must be centered in vehicle

6 - Angle bracket

- With felt base

7 - Retaining clip (2x)

8 - Nut (2x)

9 - Bracket

10 - Angle bracket

11 - Bolts (5x)

- Left-side (3x)
- Right-side (2x)
- 23 Nm (17 ft lb)

12 - Nut (2x)

- 45 Nm (33 ft lb)

13 - Nut (2x)

- 45 Nm (33 ft lb)

70-44

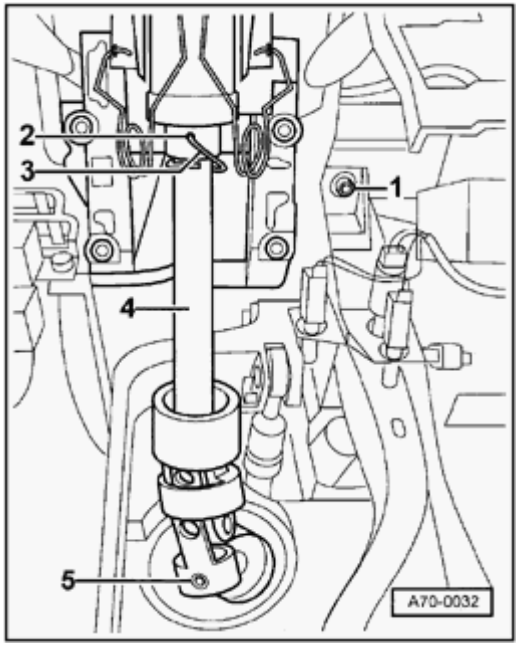
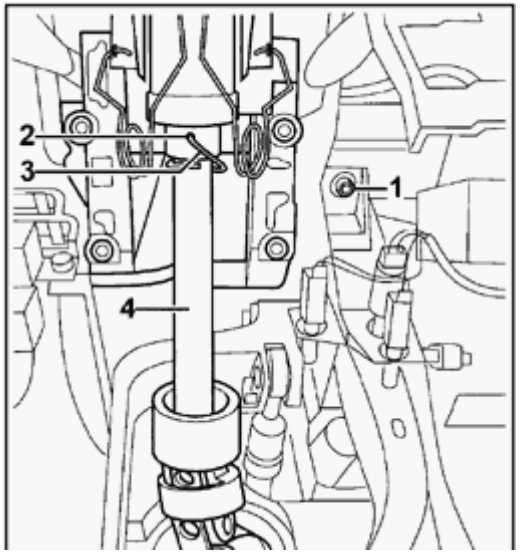


Fig. 1 Disconnecting pedal assembly

- Remove bolt -1-.

  Tightening torque: 25 Nm (18 ft lb)



Removing lower section of steering column

- Remove bolt -5- and fold down joint.

  Tightening torque: 40 Nm (30 ft lb)

Note:

The steering column joint can only be attached in one position when

installing.

⇒ *Repair Manual, Suspension, Wheels, Steering, Repair Group 48.*

- Push back steering column (lower section) -4- until hole 2 in steering column (upper section) covers hole in steering column (lower section).
- Insert welding wire -3- in hole -2- and secure by wrapping once around steering column.

CAUTION!

Do NOT under any circumstances pull steering column -4- out completely or push it in completely (⇒ Repair Manual, Suspension, Wheels, Steering).

70-45

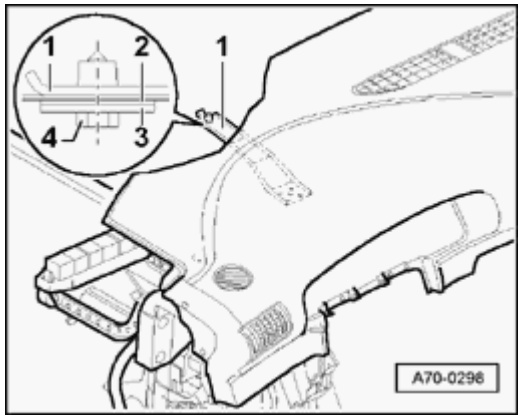


Fig. 2 Removing steering column brace

Note:

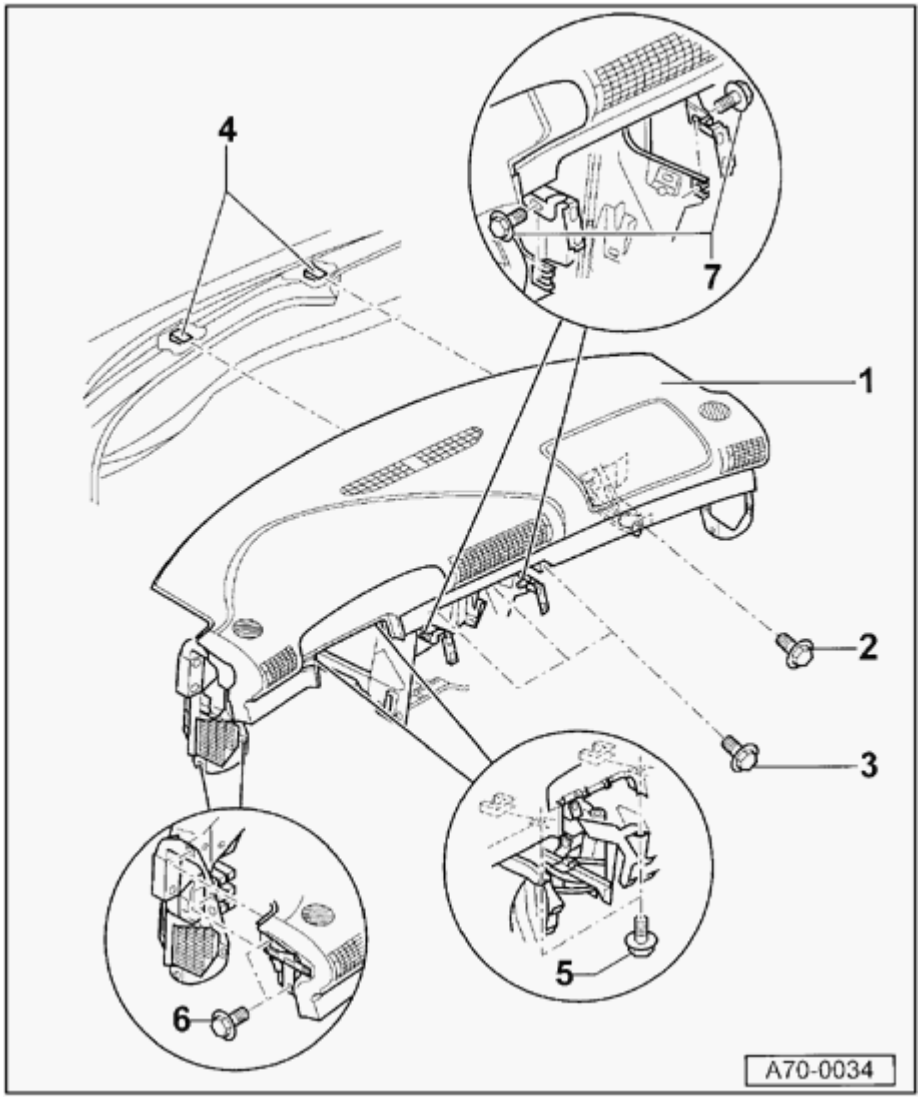
Steering column brace used 5/98 ➢; bolt for steering column brace is in the plenum panel, on the driver-side above the windshield wiper motor.

- Remove bolt -4-.

  Tightening torque: 8 Nm (71 ft lb)

- Remove washer -3- and gasket -2-.
- If necessary when installing, use drift to align brace -1- to hole in bulkhead.

70-46



Instrument panel, removing and installing

1 - Instrument panel

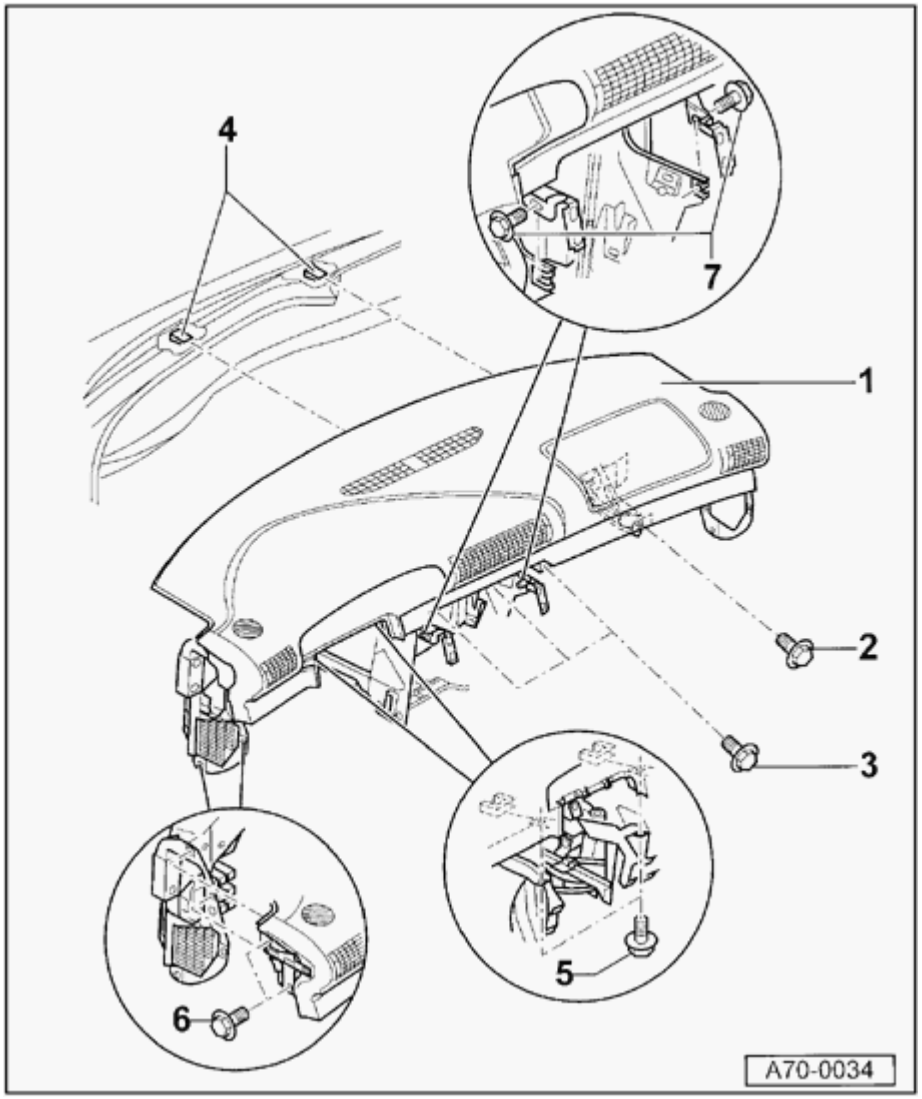
Removing:

- Remove driver-side knee bolster ⇒ page 68-8 .
- Remove passenger-side knee bolster ⇒ page 68-1 .
- Remove rear center console ⇒ page 68-13 .
- Remove front center console ⇒ page 68-30 .
- Remove instrument panel center piece ⇒ page 68-31 .
- Remove driver-side airbag unit ⇒ page 69-54 .
- Remove steering wheel ⇒ page 69-57 .
- Remove passenger-side airbag unit ⇒ page 69-70 .
- Remove steering column cover ⇒ page 68-11 .
- Remove bolts -2-, -3-, -5-, -6-, and -7-.
- To remove, pull instrument panel out of brackets -4-.

Note:

Always replace instrument panel after passenger airbag has deployed.

70-47



Installing:

- Installation is the reverse of removal

Adjusting:

- Instrument panel must be centered in vehicle

2 - Bolt

- 5 Nm (44 ft lb)

3 - Bolts (3x)

- 5 Nm (44 ft lb)

4 - Brackets (2x)

- With felt base

5 - Bolts (2x)

- 5 Nm (44 ft lb)

6 - Bolts (2x)

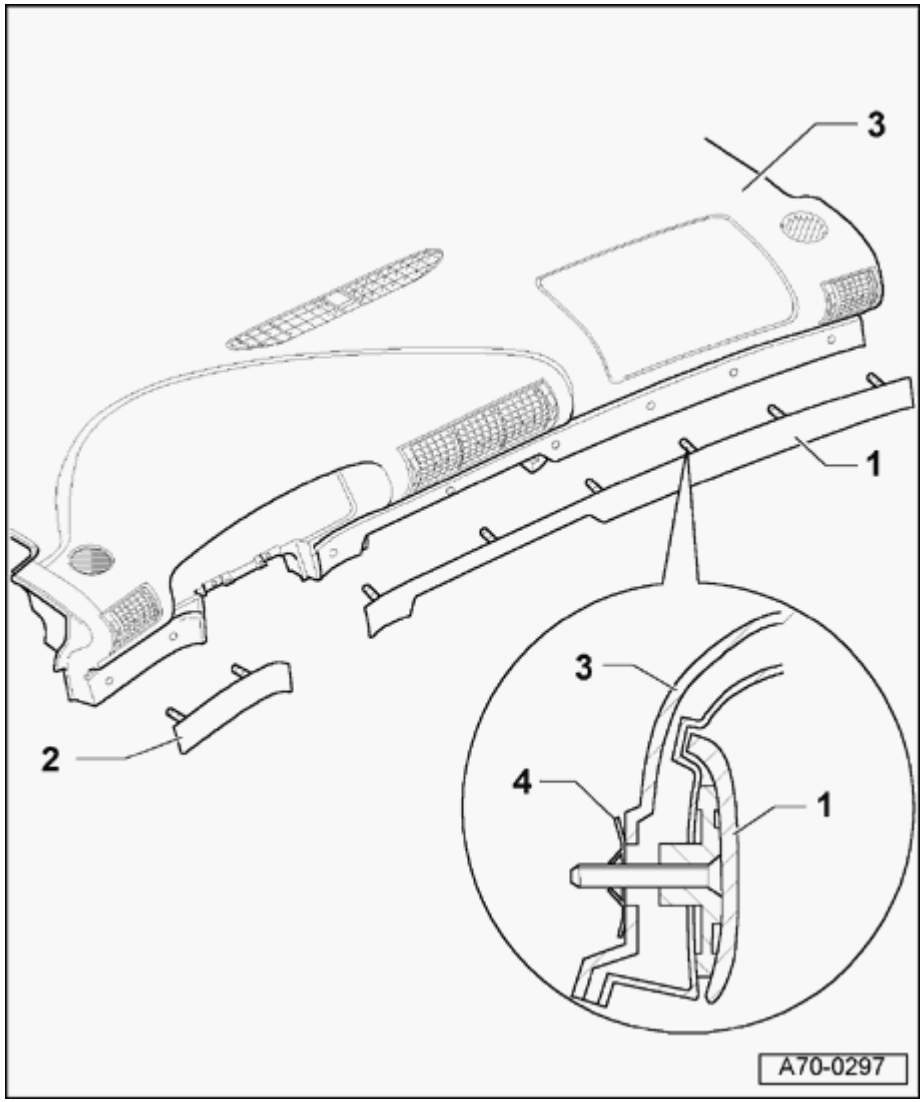
- Remove bolts on left and right-side of instrument panel.

- 5 Nm (44 ft lb)

7 - Bolts (2x)

- 5 Nm (44 ft lb)

70-48



Instrument panel trim, removing and installing

1 - Trim, passenger-side

- Remove driver-side knee bolster ⇒ page 68-8 .
- Remove passenger-side knee bolster ⇒ page 68-1 .
- Remove rear center console ⇒ page 68-13 .
- Remove front center console ⇒ page 68-30 .
- Remove instrument panel center piece ⇒ page 68-31 .
- Remove clips -4- using screwdriver.

2 - Trim, driver-side

- Remove driver-side knee bolster ⇒ page 68-8 .
- Remove clips -4- using screwdriver.

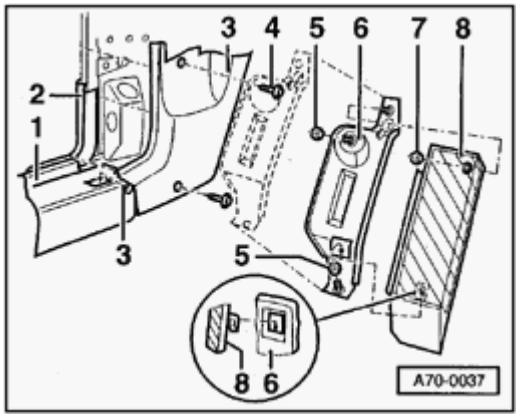
3 - Instrument panel

4 - Clip

70-72

Trim (general)

Lower A-pillar trim, removing and installing



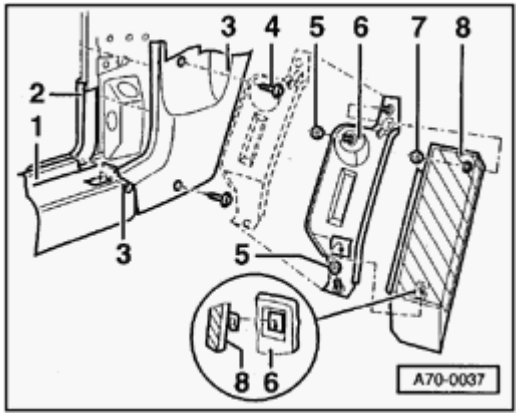
- To remove, remove A-pillar bolts 4 (2x).

  Tightening torque: 1.5 Nm (13 in. lb)
- Remove door seal -2- in area of A-pillar trim.
- Pull A-pillar trim -3- from door sill molding -1-.

70-73

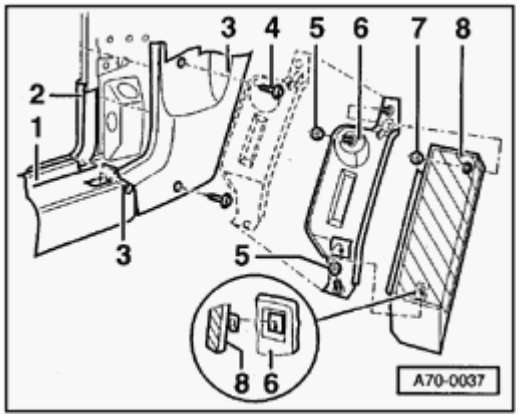
Foot rest and foot rest support bracket, removing and installing

Removing foot rest



- Remove lower A-pillar trim ⇒ page 70-72 .
- To remove foot rest -8-, remove nuts -7- and pull up and out of bracket -6-.

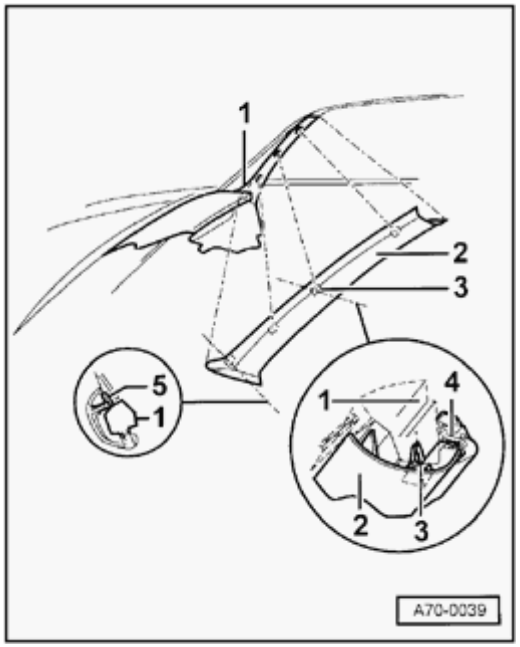
Removing foot rest support bracket



- Remove foot rest.
- Pull up floor mat in area near bracket for foot rest.
- To remove bracket -6-, remove nuts -5- (2x).

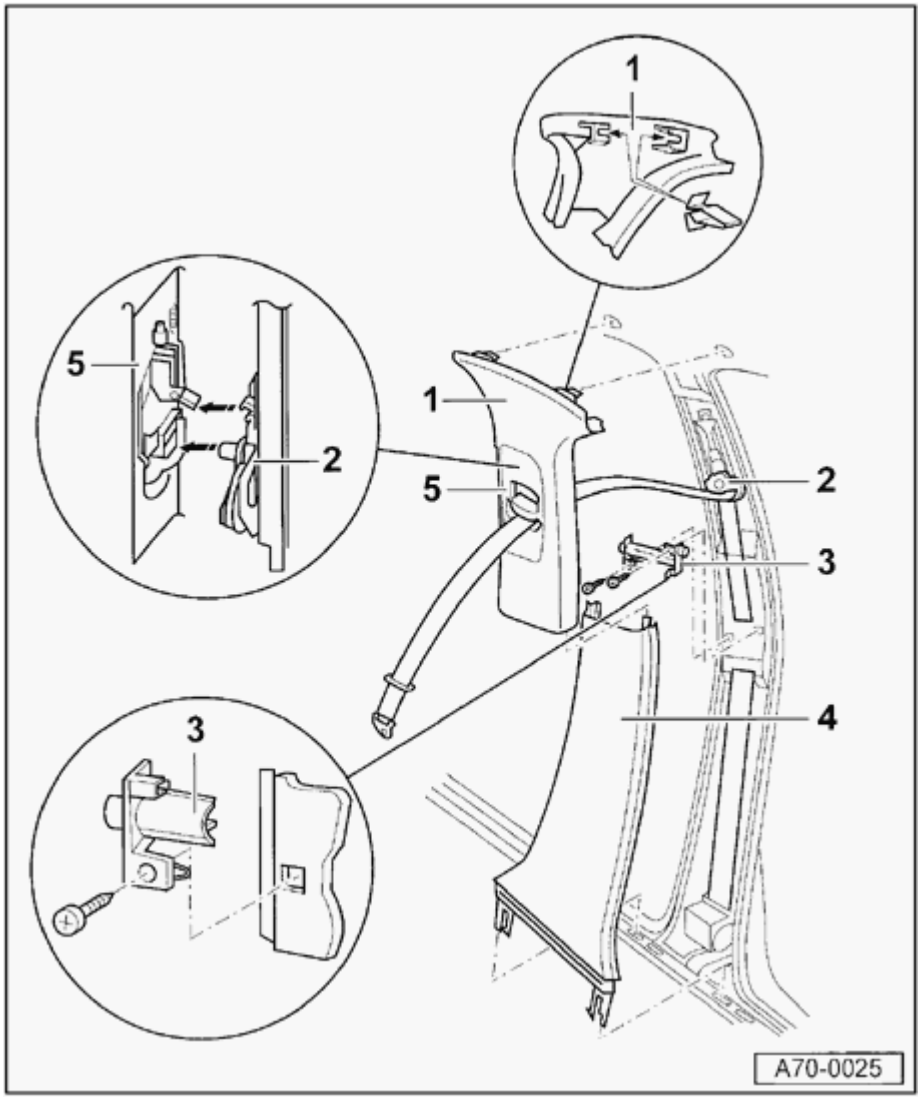
70-74

Upper A-pillar trim, removing and installing



- Unclip retaining clips -3- from top to bottom from A-pillar trim -2-.
- Door seal -4- must lie on top of A-pillar trim -2- as shown in magnified area.
- Insert lower A-pillar trim in retaining clips -5-.

70-75



B-pillar trim, removing and installing

1 - Upper B-pillar trim

Removing:

- Unclip upper B-pillar trim -1- ⇒ Fig 2 .
- Pull B-pillar trim -1- upward out of B-pillar trim -4-.
- Disconnect three-point seat belt at door sill ⇒ page 69-13 .
- Remove three-point seat belt from B-pillar trim -1-.

Installing:

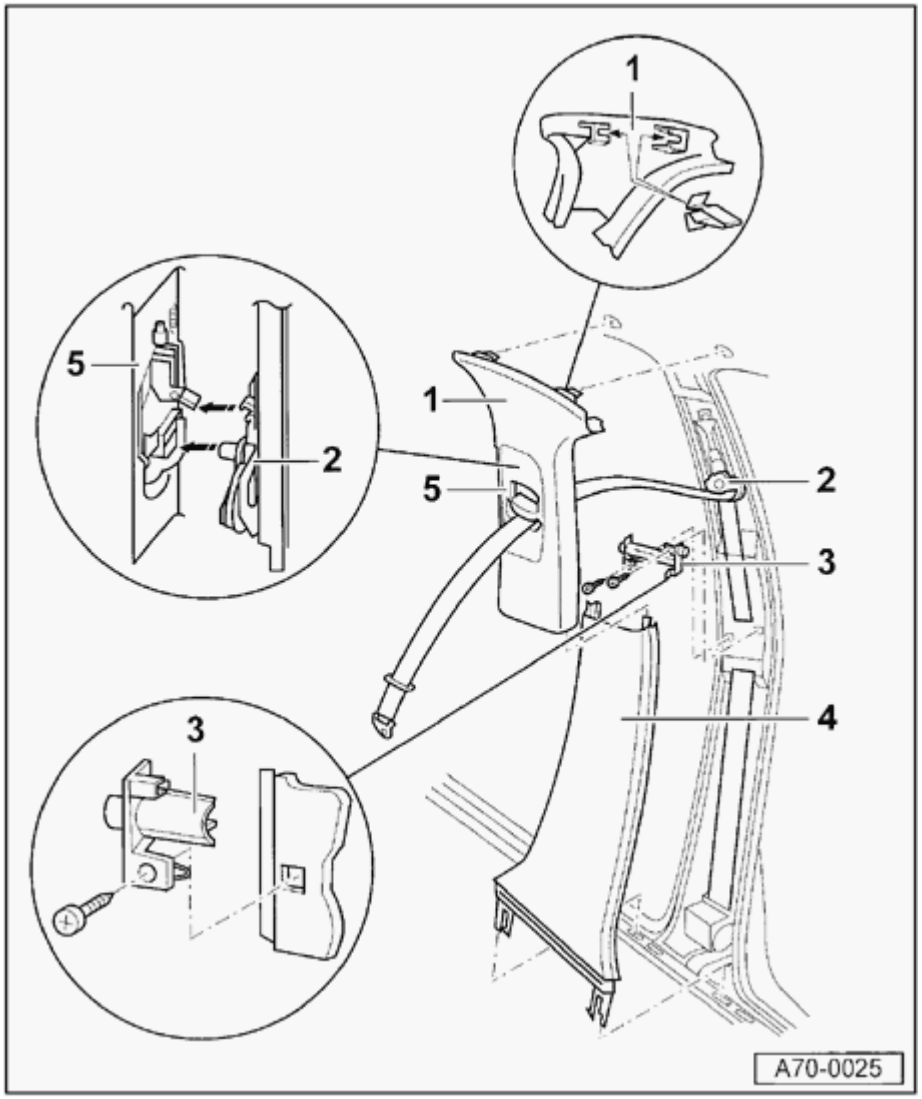
- Insert B-pillar trim -1- into B-pillar trim -4- .

Note:

Do not press button when installing.

- Install upper B-pillar trim.
- Insert seat belt guide -5- into seat belt height adjuster ⇒ Fig 1 .

70-76



Notes:

Function check after installing trim:

- *Height adjuster must audibly engage into all five of the possible positions (even in the top position).*
- *Switch must return by itself to released position after being actuated.*

2 - Anti-twist stop

3 - Belt guide

4 - Lower B-pillar trim

Removing:

- Remove upper B-pillar trim -1- (do not detach three-point seat belt).
- Push back retaining tabs (2x) for B-pillar trim at door sill.
- Remove trim -4- upward and detach from belt guide -3-.

Installing:

- Installation is the reverse of removal

5 - Seat belt height adjuster trim

70-77

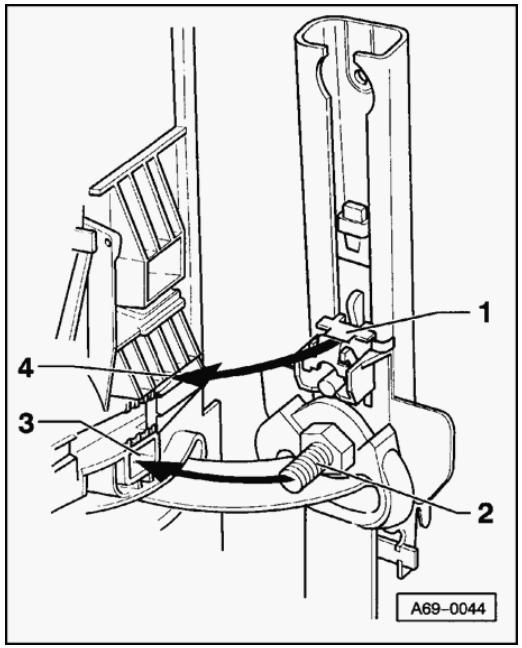


Fig. 1 Installing upper B-pillar trim in belt height adjuster

- Guide slide with button -4- (without pressing) beginning at top and working downward into release lever -1- of height adjuster, while simultaneously installing pin -2- into mounting -3-.

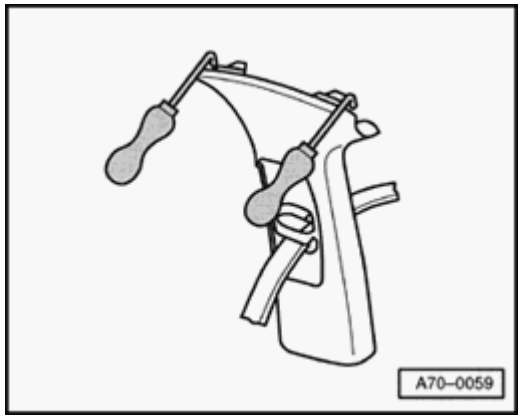
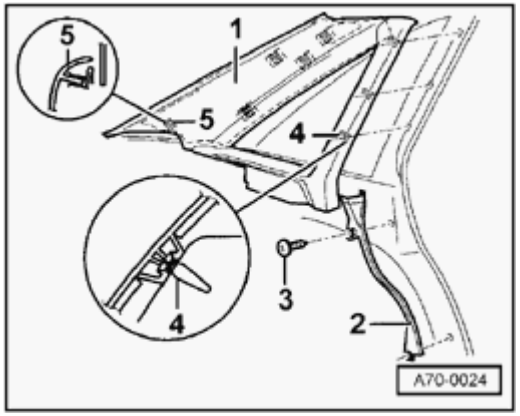


Fig. 2 Removing B-pillar trim

- To make removal easier, use two assembly hooks -2-.
- Install assembly hooks near retaining clips.

70-78

C/D-pillar trim, removing and installing

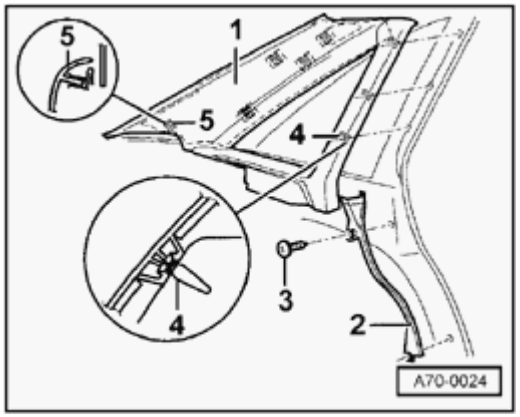


- Remove rear seatback.

- Detach trim -1- from top to bottom out of clips -4- (7x).
- Remove trim -1- upward and out of bracket -5-.

70-79

Lower C-pillar trim, removing and installing



- Remove rear seatback.

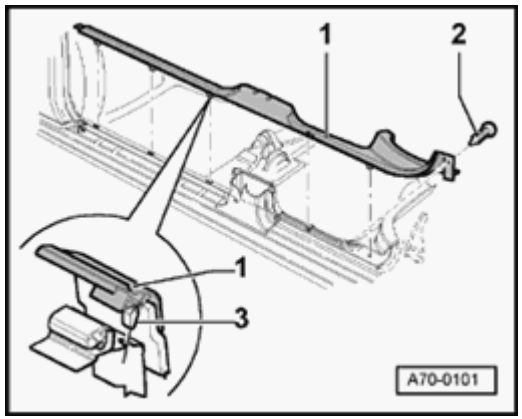
- Remove bolt -3-.

  Tightening torque: 1.5 Nm (13 in. lb)

- Remove trim -2-.

70-80

Door sill, removing and installing

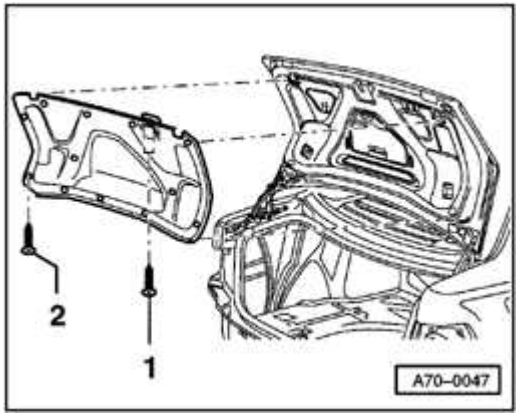


- Remove lower A-pillar trim.
- Remove metal screw -2-.
- Remove door sill -1- upward together with clips -3-.

70-81

Trunk lid trim, removing and installing

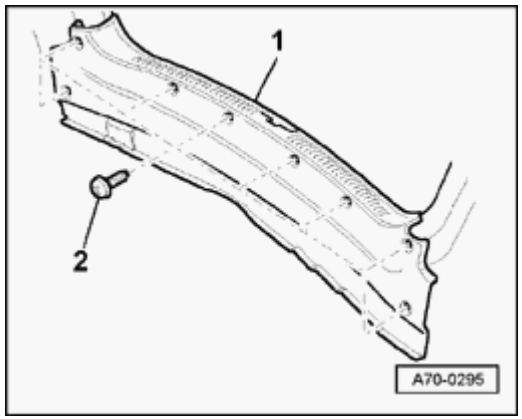
- Remove warning triangle.



- Remove bolts -1- (2x).
- Remove bolts -2- (12x) (match trim color) and remove trim.

70-82

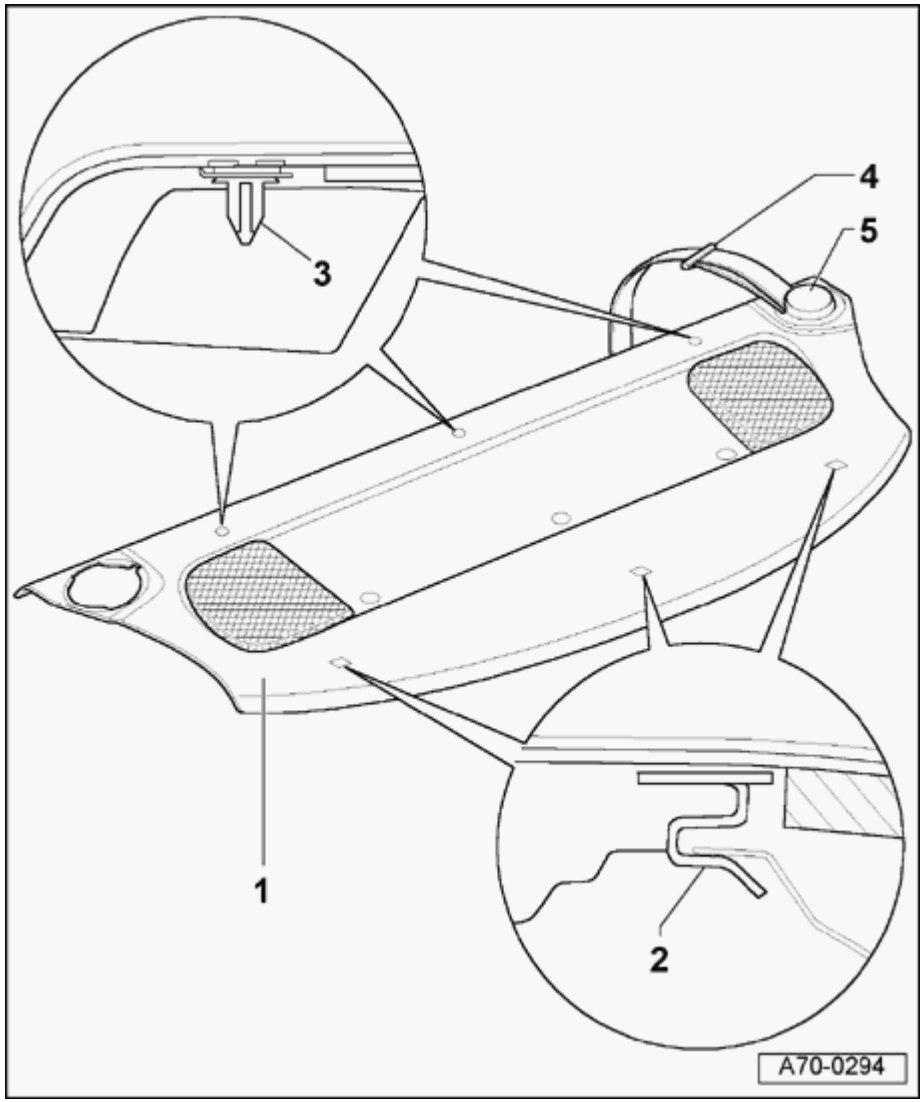
Rear panel trim, removing and installing



- Remove bolt -2- (8x).

  Tightening torque: 2 Nm (18 in. lb)
- Remove rear panel trim -1- up and out.

70-83



Rear shelf (Sedan), removing and installing

1 - Rear shelf

Removing:

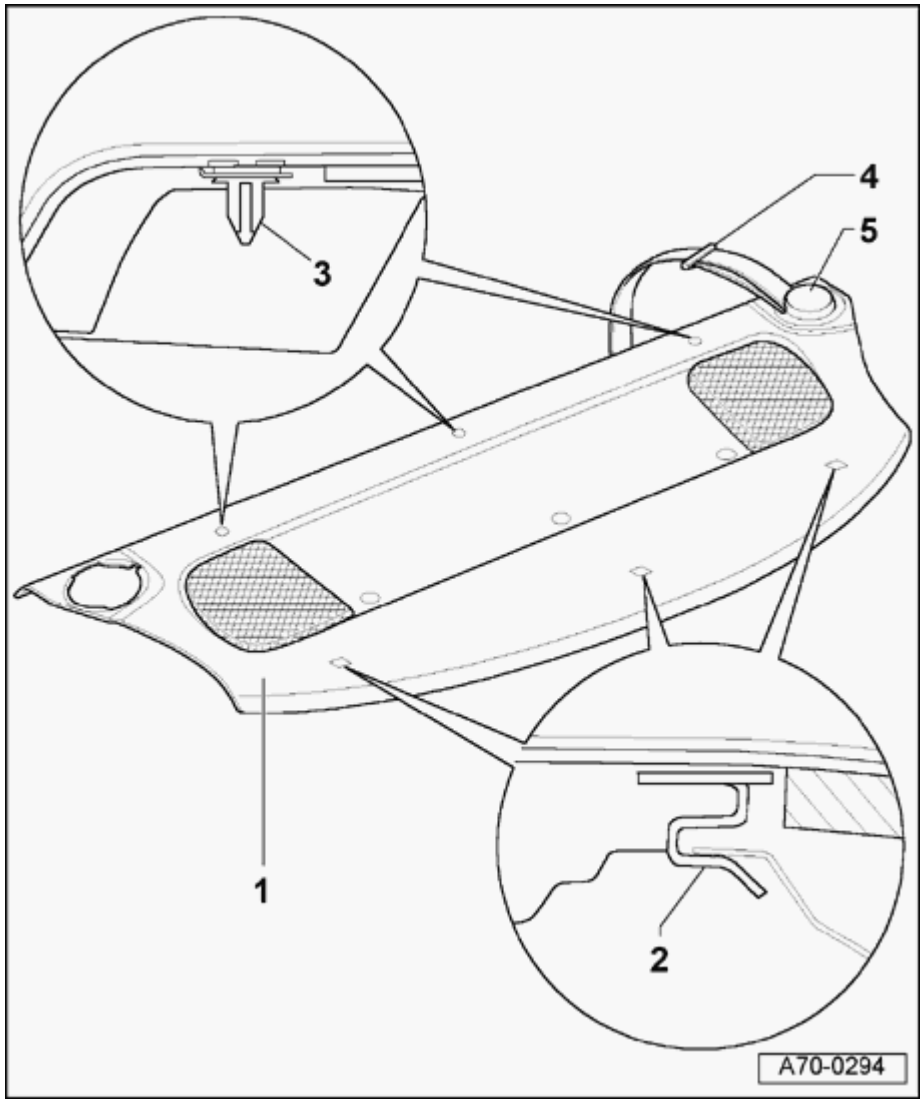
- Remove left and right-rear lower seat belt mounting ⇒ page 69-15 .
- Remove left and right-rear side cover ⇒ page 72-75 .
- Unclip cover -5- and guide -4- of left and right-rear three-point seat belts ⇒ page 70-85 .
- For vehicles with third brake light, disconnect harness connector to third brake light in trunk.
- Unclip clips -3- (3x) by carefully lifting rear shelf.
- Pull rear shelf forward and remove.

Installing:

- When installing, slide rear shelf -1- in while pressing down slightly until clips -3- (3x) engage.
- Engage clips -3- (3x).

♦ Rest of installation is reverse of removal

70-84



2 - Clips (3x)

3 - Clips (3x)

4 - Guide

5 - Cover

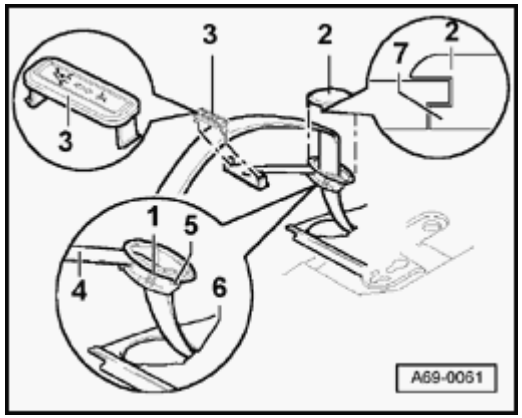
70-85

Rear belt adjuster, removing and installing

Removing

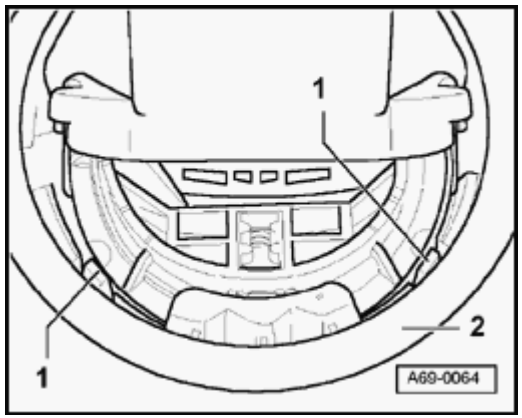
Note:

It is not necessary to remove the rear shelf when removing the rear belt adjuster.

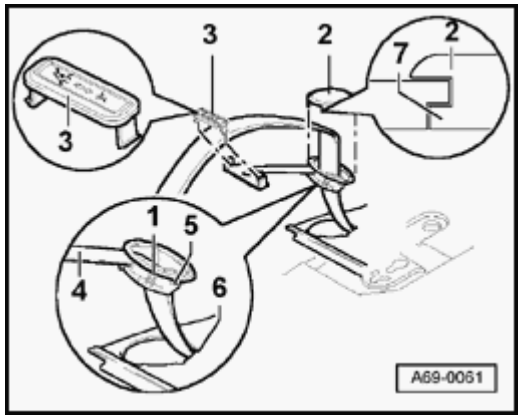


- Undo lower anchoring point of rear three-point seat belt.

  Tightening torque: 50 Nm (37 ft lb)
- Unclip belt guide cover -3-.
- Detach belt adjuster cover -2- at left and right of retaining tab -7-.
- Swing belt adjuster -4- with belt webbing upward.



- Use screwdriver to press retaining tab -1- (2x) inward while simultaneously pulling up on belt adjuster -2-.
- Pull belt webbing through belt adjuster -2-.



Installing

- Make sure retaining tabs -1- (2x) fully engage.
- Make sure rear lug engages in notch -6-.

  Adjustment locking device -5- must point toward center of vehicle.

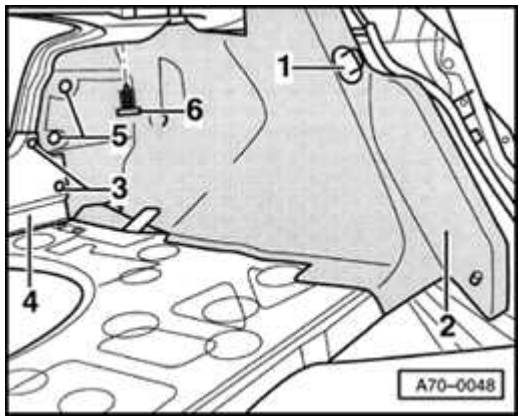
Left and right-side trunk trim, removing and installing

Foldable rear backrest

- Remove side cover ⇒ page 72-75 .

Split-foldable rear seat, removing and installing
⇒ page 72-60

- Remove on-board tool kit and jack.



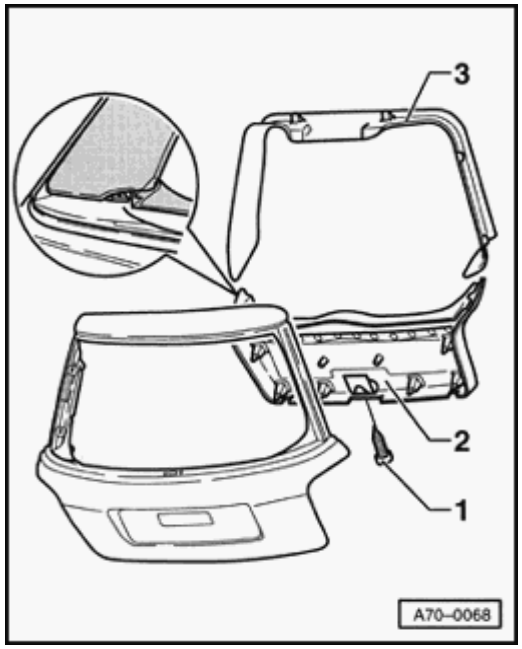
- Remove cover -1- for latch bracket and remove trim -2-.
- Remove plastic clips -5- (2x) at tail light.
- Remove screws -3- for loading edge cover -4-.

  Tightening torque: 1.5 Nm (13 in. lb)
- Unclip clip -6- at left side reinforcement.
- Raise loading edge trim -4- slightly and pull out trim -2-.
- Tilt trim toward center of vehicle and remove.

70-98

Trim (Avant)

Tailgate trim, removing and installing



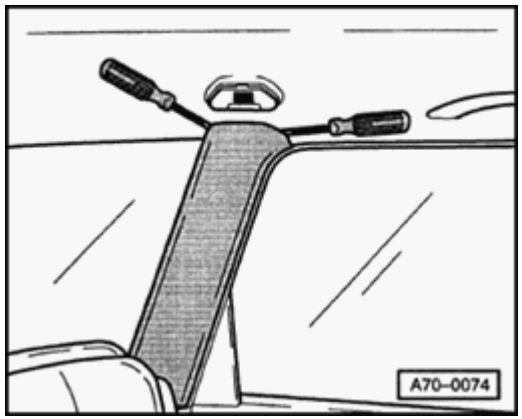
- Remove bolt -1-.
- Tightening torque: 1.2 Nm (10 in. lb)
- Unclip lower tailgate trim -2-.
- Unclip upper tailgate trim -3-.

Note:

When installing the lower trim, guide bars must be inserted in upper trim.

70-99

C-pillar trim, removing and installing



- Remove side panel ⇒ page 72-75 .
- Remove side trim ⇒ page 70-102 .
- Remove C-pillar trim using assembly hooks.

Note:

When installing, ensure retaining clips are positioned properly.

70-100

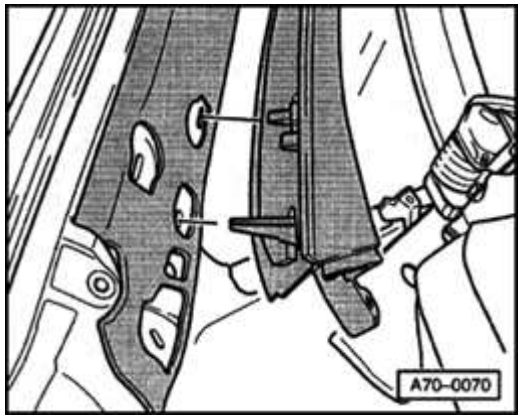
D-pillar trim, removing and installing

- Remove side panel ⇒ page 72-75 .

- Remove side trim ⇒ page 70-102 .

Removing

- Remove D-pillar trim (use assembly hooks for easier removal).



Installing

- Install trim at roof panel trim, guide centering drift to centering hole and position retaining clips.



- Swing D-pillar trim in direction of arrow and attach to body.

CAUTION!

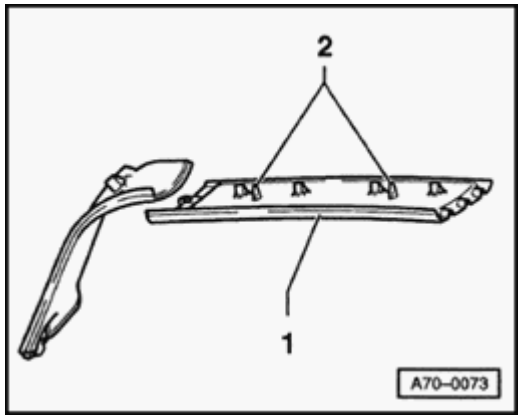
- ***When installing D-pillar trim, it must be inserted in roof panel trim groove.***

- ***Current retaining clips are not right-angled. If clips were separated from D-pillar trim during removal, they must be repositioned at the correct angle.***

70-101

Roof panel trim, removing and installing

- Remove side panel ⇒ page 72-75 .
- Remove rear panel trim ⇒ page 70-103 .
- Remove side trim ⇒ page 70-102 .
- Remove D-pillar trim -3- ⇒ page 70-100 .



- Remove bolts (arrow) 2x and unclip trim -1-.

  Tightening torque: 1.5 Nm (13 in. lb)

Note:

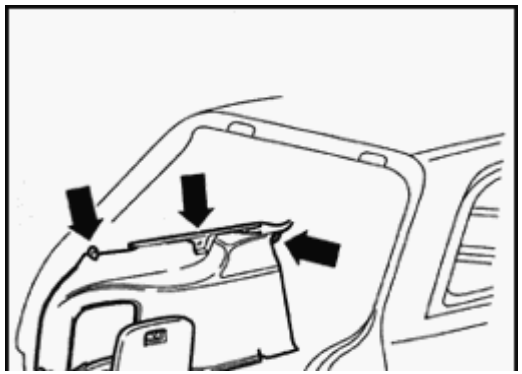
To install, insert centering drifts in locating holes -2- and correctly position retaining clips.

70-102

Left and right-side trim, removing and installing

- Remove side panel ⇒ page 72-75 .
- Remove tailgate seal in area of loading edge/side panels.
- Remove loading edge ⇒ page 70-103 .
- Lift front edge of cover for seat belts and unclip.
- Lift up cover for latch bracket for rear backrest.
- Remove cap.

Disassembling tie-down ⇒ page 70-104 .



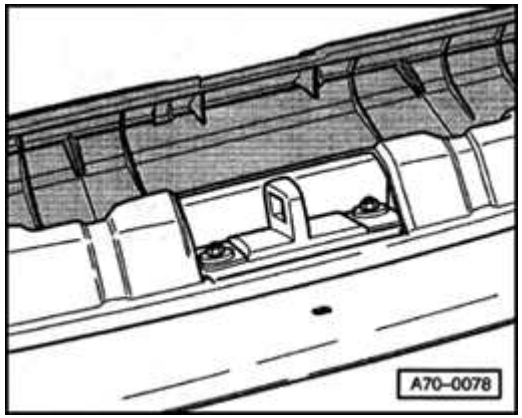
- Remove bolts (arrow).

  Tightening torque: 1.5 Nm (13 in. lb)
- Unclip side trim and pull up and over belt guide and latch bracket.
- If changing completely, disassemble seat belt webbing underneath rear seat.

Installation is the reverse of removal.

70-103

Rear panel trim, removing and installing



- Remove tailgate seal in area near trim.
- Remove bolts (2x).

  Tightening torque: 1.5 Nm (13 in. lb)

- Remove rear panel trim upward.

Note:

When installing, install centering drifts in locating holes and position retaining clips properly.

70-104

Tie-down (Avant), removing and installing

- Remove bolts (2x) for each tie-down.

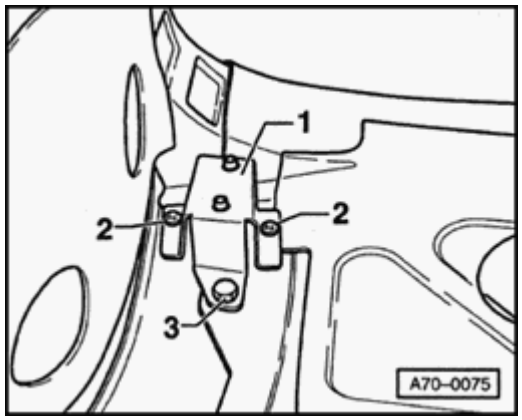
  Tightening torque: 4.5 Nm (40 in. lb)

- Remove trunk mat.

- Remove side trim ⇒ page 70-102 .

- Remove trunk mat backing and brackets for front and rear tie-downs.

Installation is the reverse of removal

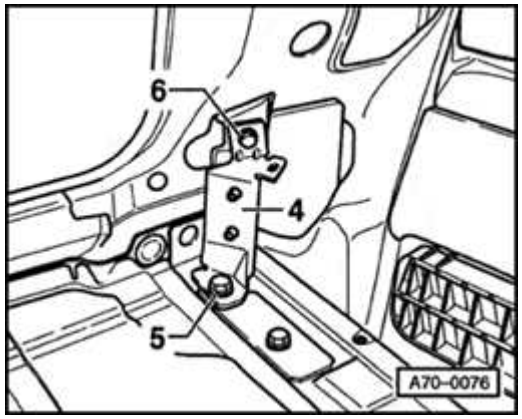


Tightening torques for front brackets:

Phillips-head screw (2x with front-wheel drive; 4x with all wheel drive): 6 Nm (53 in. lb)

Hex bolt (1x - only for front wheel drive): 30 Nm (22 ft lb)

70-105



➢ Tightening torques for rear brackets:

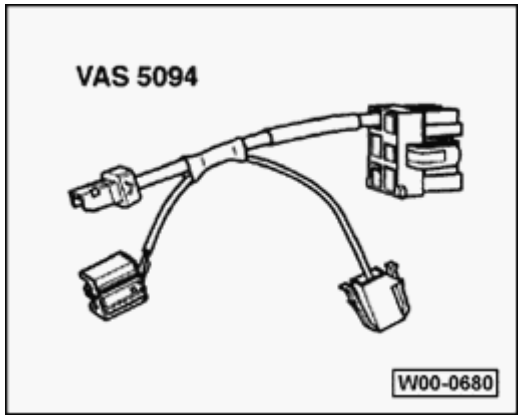
Bolt in floor: 23 Nm (17 ft lb)

Bolt in rear panel: 10 Nm (7 ft lb)

72-1

Front seats

Special tools and equipment



VAS 5094 airbag adapter

Connecting ⇒ page 72-9 .

72-2

Front seats, removing and installing

WARNING!

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

Notes:

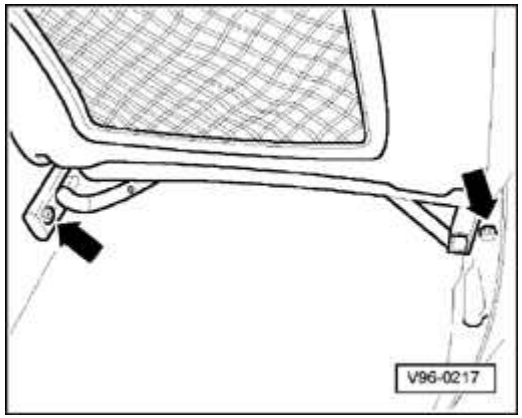
- *Slight changes may have to be made to the removal and installation procedures, depending upon the equipment installed in vehicle.*
- *For memory and power seats, move seat fully up and back before disconnecting the battery.*
- *Before disconnecting the battery, determine the radio code.*

72-3

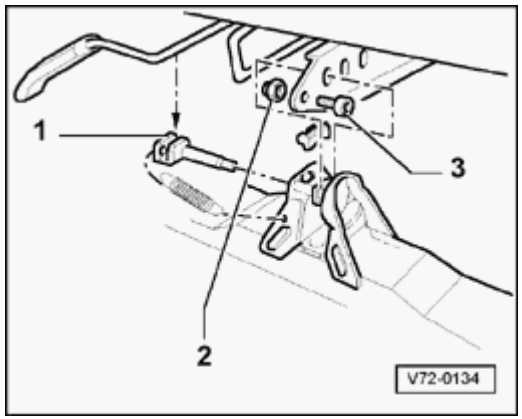
WARNING!

Before removing seat, disconnect battery Ground (GND) strap.

- Push seat forward.



- Remove cap (right arrow) and remove Phillips-head screw located under cap.
- Remove screw (left arrow) and remove stopper toward rear.



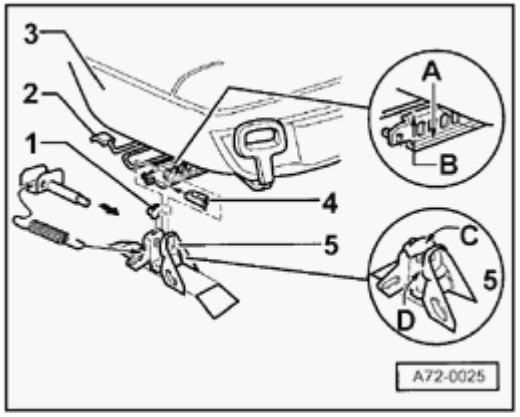
- Remove cap nut -2- and socket-head screw -3-.

  Tightening torque: 8 Nm (71 ft lb)
- Release retaining rod -1- and pull seat toward rear out of guide rails.

Note:

The attachment with socket-head screw -3- is replaced by a stop spring as a running change.

72-4



- Unclip stop spring -4-.
- Pull release lever up and push out seat -3- to rear.

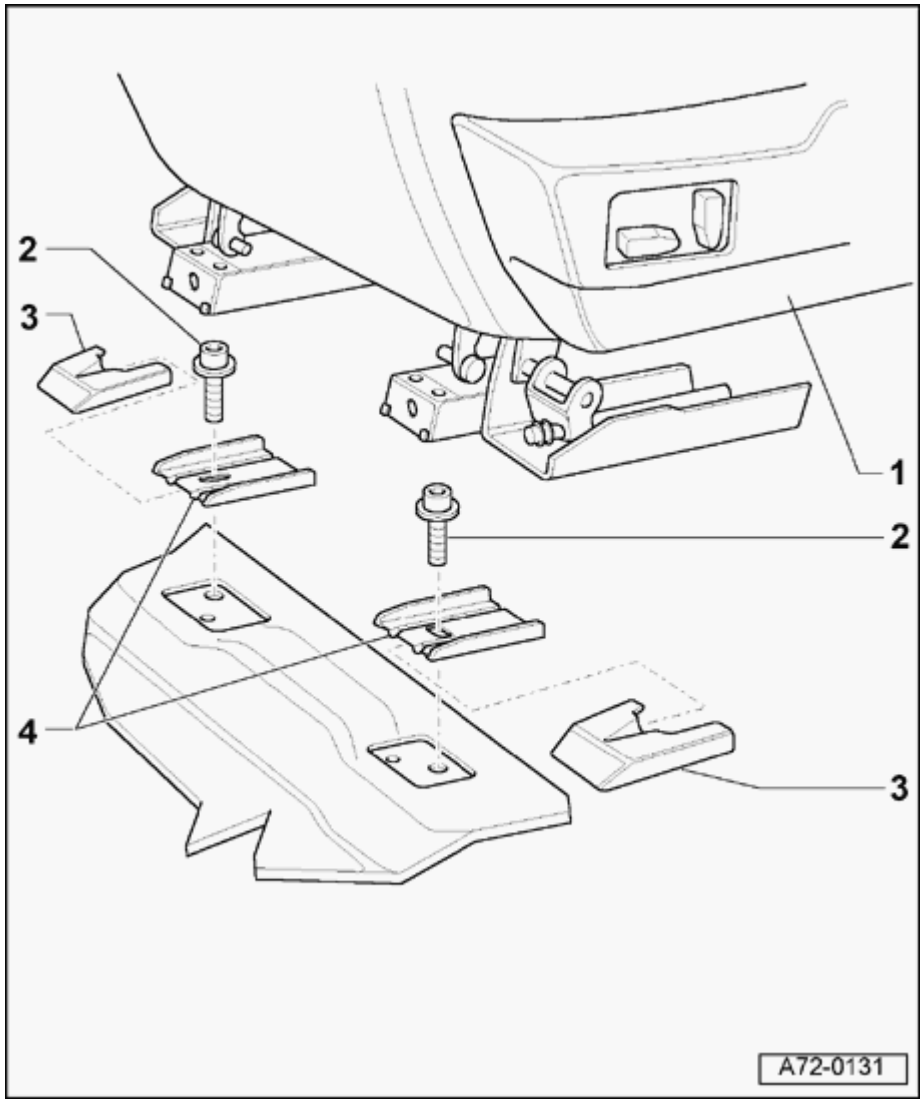
Note:

For vehicles with heated seats, disconnect the harness connector.

CAUTION!

When sliding seat out of guide rails, ensure that carpeting is not ripped.

72-5



Front power seats, removing and installing

WARNING!

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

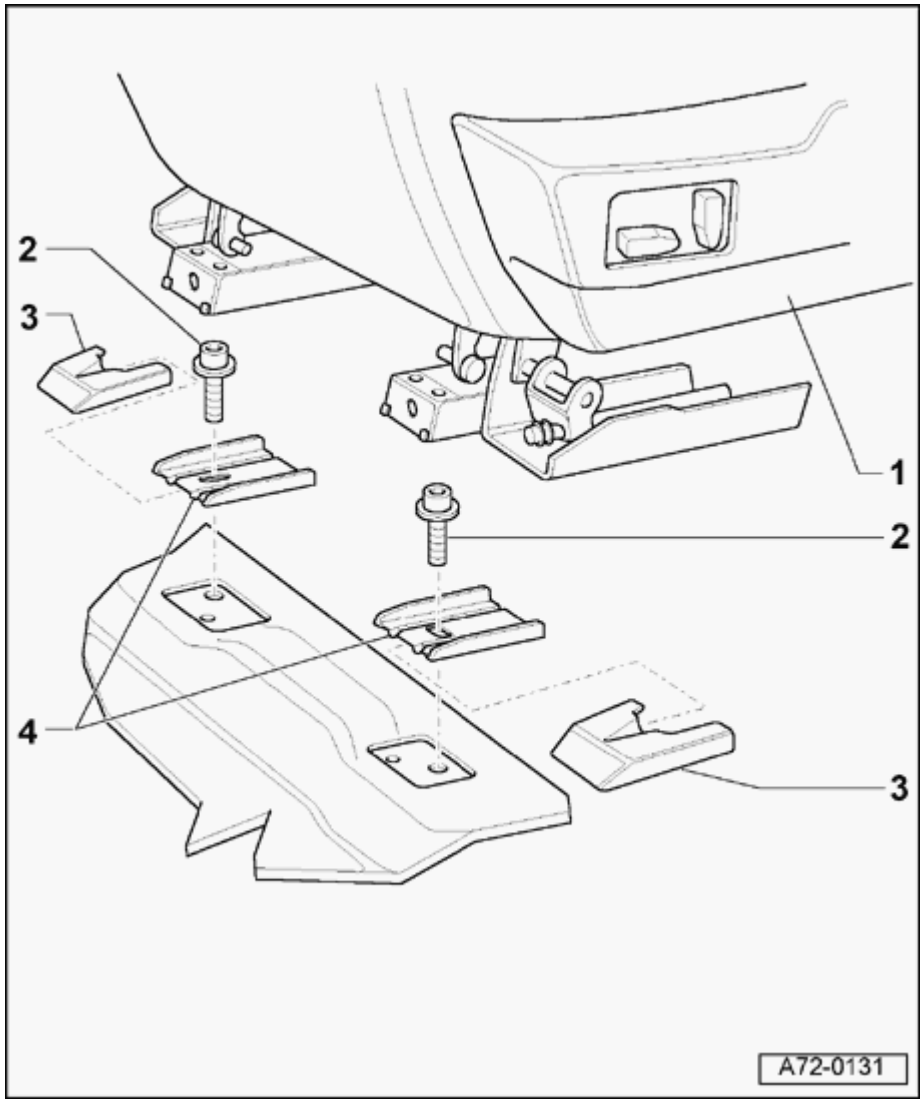
Notes:

- *Slight changes may have to be made to removal and installation procedures, depending upon equipment installed in vehicle.*
- *For power seat, move seat fully up and back before disconnecting battery.*
- *Before disconnecting battery, determine radio code.*

WARNING!

Disconnect battery Ground (GND) strap before removing seat.

72-6



1 - Front seat

Removing:

- Remove left and right caps -3- by pushing down, then pulling toward front of vehicle.
- Remove bolts -2-.
- Carefully remove front seat -1- from vehicle.

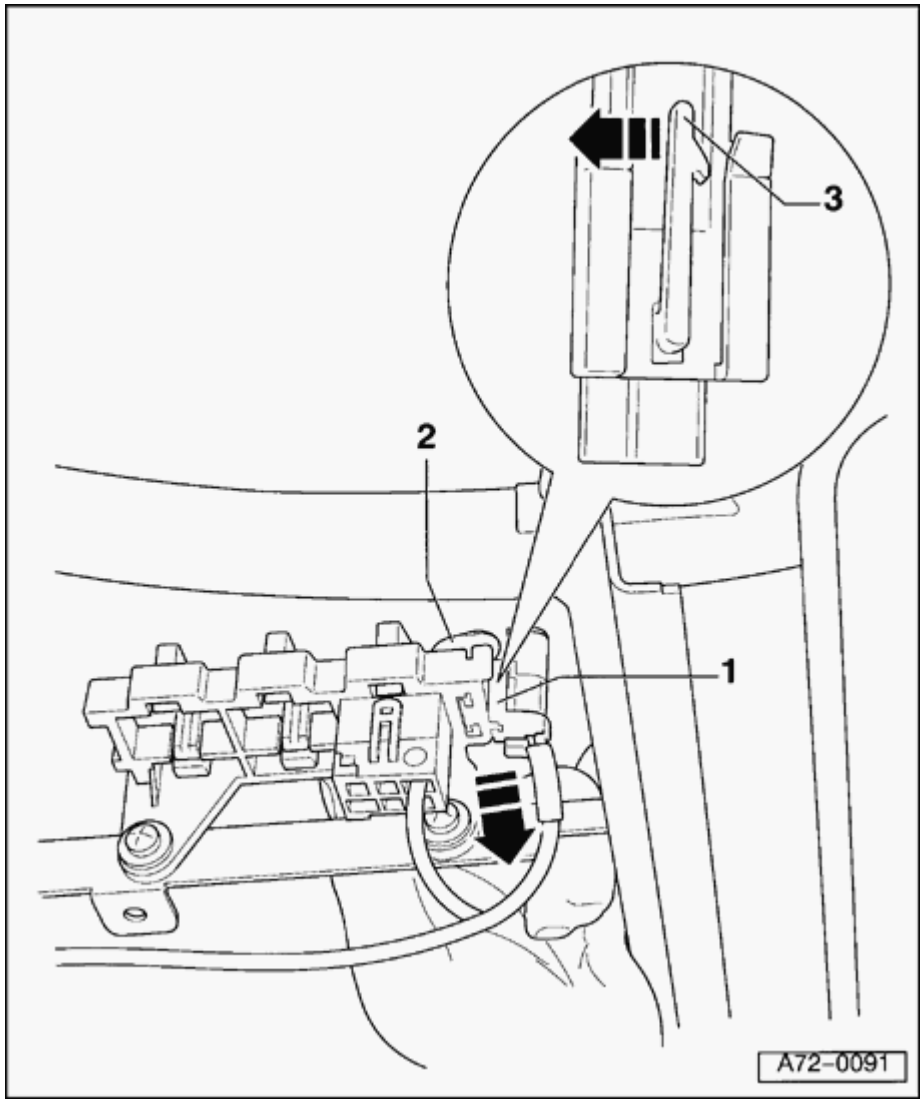
2 - Bolts

- 25 Nm (18 ft lb)

3 - Caps

4 - Seat rail

72-7



Side airbag harness connector, disconnecting

WARNING!

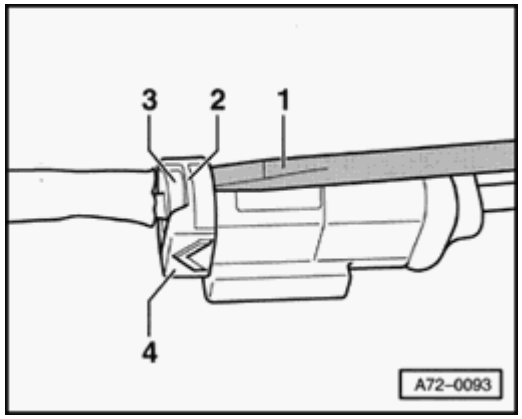
Before starting work on seats, connect VAS 5094 airbag adapter ⇒ ***page 72-9*** **.**

Note:

Technician must be grounded before disconnecting ignition and Ground (GND) wiring; to ensure proper grounding, touch door striker or body.

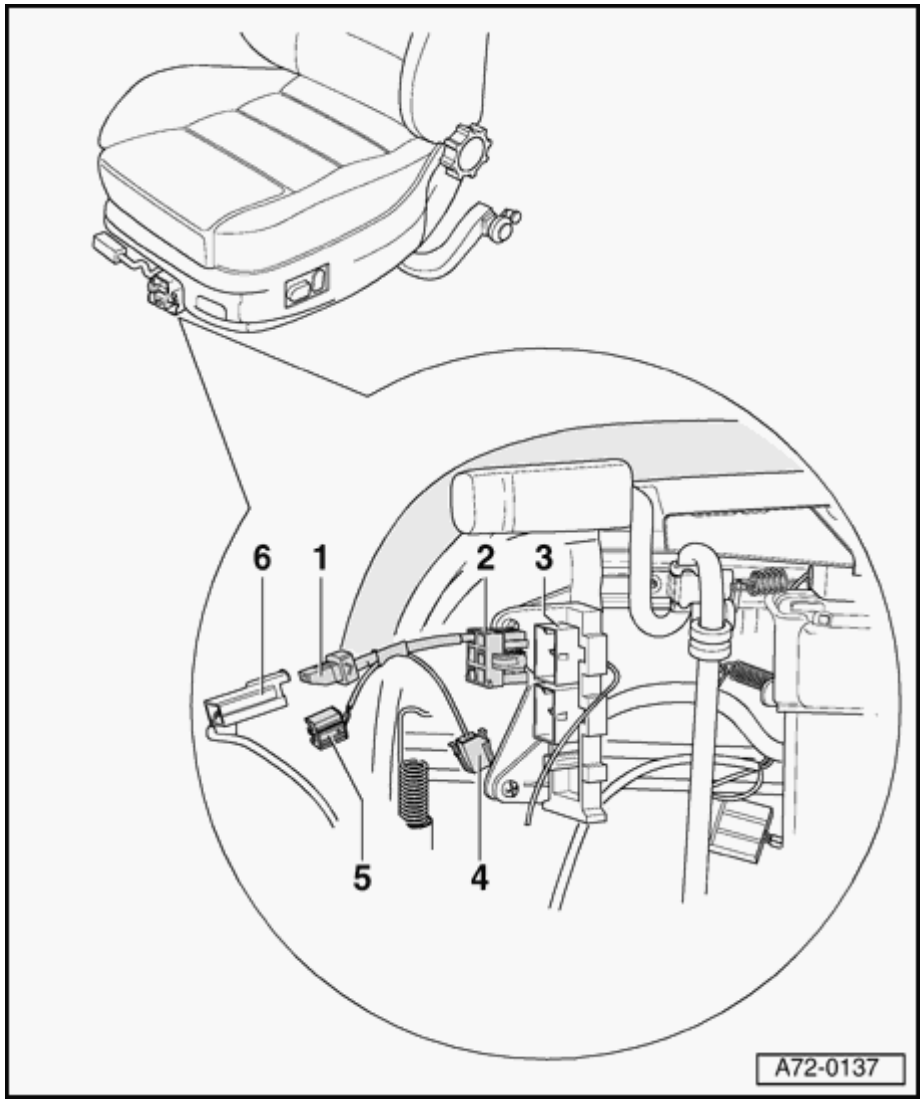
- Grab side airbag harness connector -1- from behind.
- Pull catch -3- with one finger in direction of arrow (toward hand).
- At same time, use same hand to pull side airbag connector -1- forward (in direction of arrow).

72-8



- Using screwdriver -1-, push tab -2- over catch -3- and disconnect harness connector -4-.

72-9



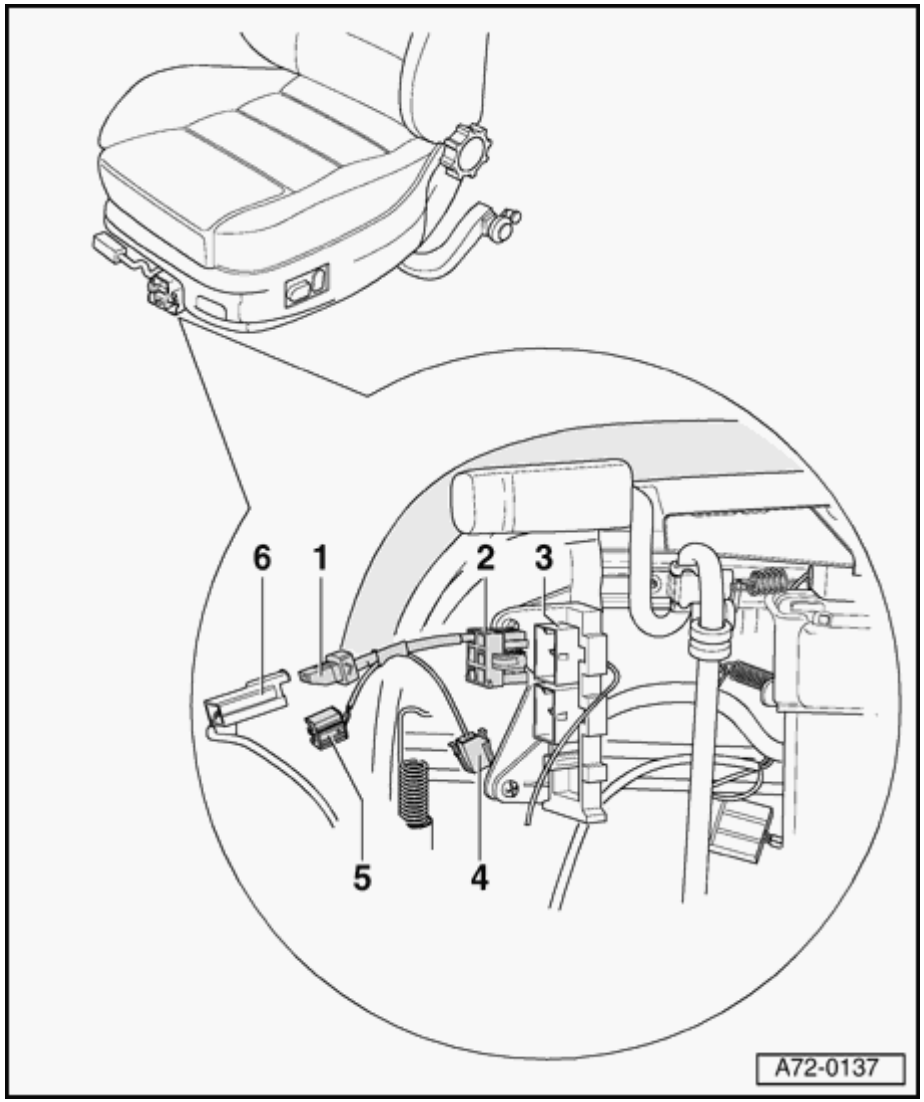
VAS 5094 airbag adapter, connecting

- Insert harness connector -2- ((VAS 5094 airbag adapter) into connector housing -3-.
- Connect igniter wire -6- from airbag module (on seat frame) to harness connector -1- (airbag adapter).
- For seats with seat heaters, disconnect harness connector.
- Turn down carpet in area near guide rail.
- Push seat back out of guide rail.
- Lift seat out of vehicle.

WARNING!

Leave VAS 5094 airbag adapter on seat until seat is again installed in vehicle.

72-10



1 - Airbag adapter-igniter wire harness connector

2 - Airbag adapter - Ground wire harness connector

- Audi A6, 1998 ➢
- Audi A4, 1995 ➢
- Audi A3, 1997 ➢

3 - Ground wire harness connector from airbag module

4 - Airbag adapter - Ground wire harness connector

- Golf, 1991 ➢

5 - Airbag adapter - Ground wire harness connector

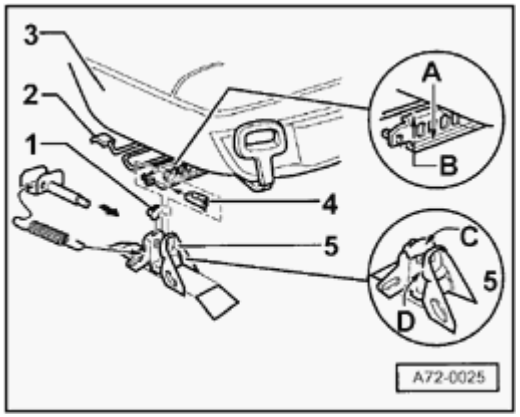
- Passat, 1997 ➢

6 - Airbag module igniter wire harness connector

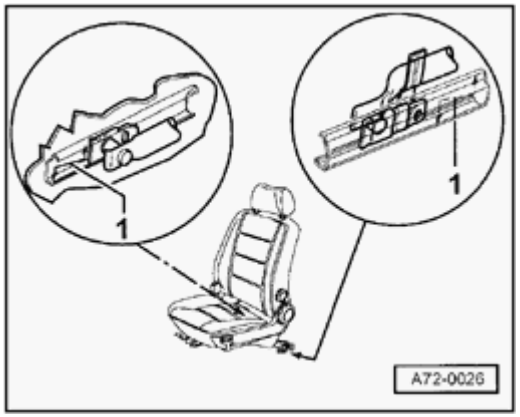
- From airbag module on seat frame

72-11

Front seat lubrication locations



- Lubricate lubrication positions -A-, -B-, -C-, and -D- using G 052 745 A3 universal low temperature grease.



- Lubricate seat guide rails at locations -1- and at side using thin layer of G 052 745 A3 universal low temperature grease.

Notes:

- *When lubricating, make sure no grease gets on the carpet or seats.*
- *Only apply a thin layer of grease.*

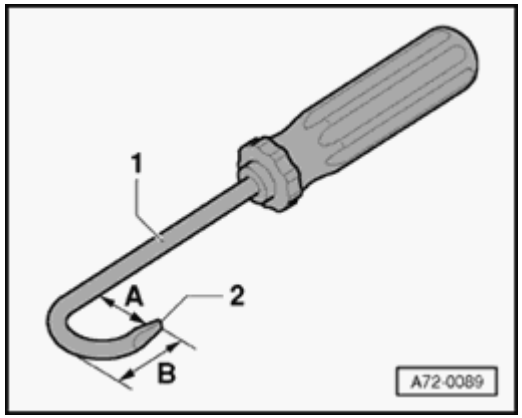
72-12

Backrest, removing and installing

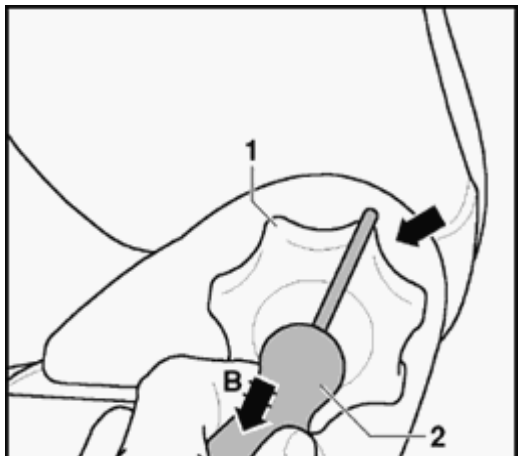
WARNING!

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

Fabricating removal tool:

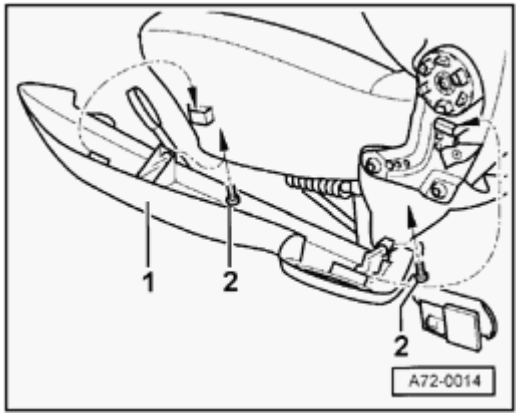


- Bend screwdriver -1- with width -2- (3.5 mm) and dimensions -A- (20 mm) and -B- (max. 15 mm).
- Remove seat ⇒ page 72-2 .

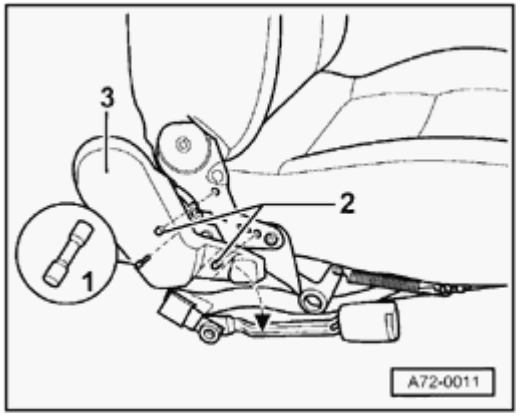


- Turn adjusting wheel -1- from behind until you can see one of the adjusting wheel catches (direction of arrow A). If necessary, use flashlight.
- Attach removal tool -2- and pull in direction of arrow -B-.
- Turn adjusting wheel an additional 120° .
- Attach removal tool -2- and pull in direction of arrow B.
- Remove adjusting wheel.

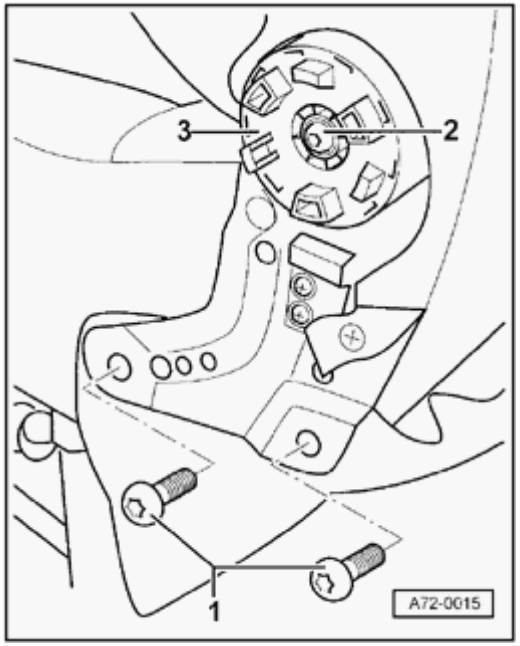
72-13



- Remove bolts -2- (2x).
- Pull bottom of trim piece -1- out slightly and detach upward out of front and rear brackets.



- Move belt buckle forward.
- Push through pins -2- (2x) toward inside.
- Push pin -1- in to first detent.
- Remove trim piece -3-.



- For vehicles with seat heaters, disconnect harness connector under seat and detach from brackets.

- Remove bolts -1- (4x).

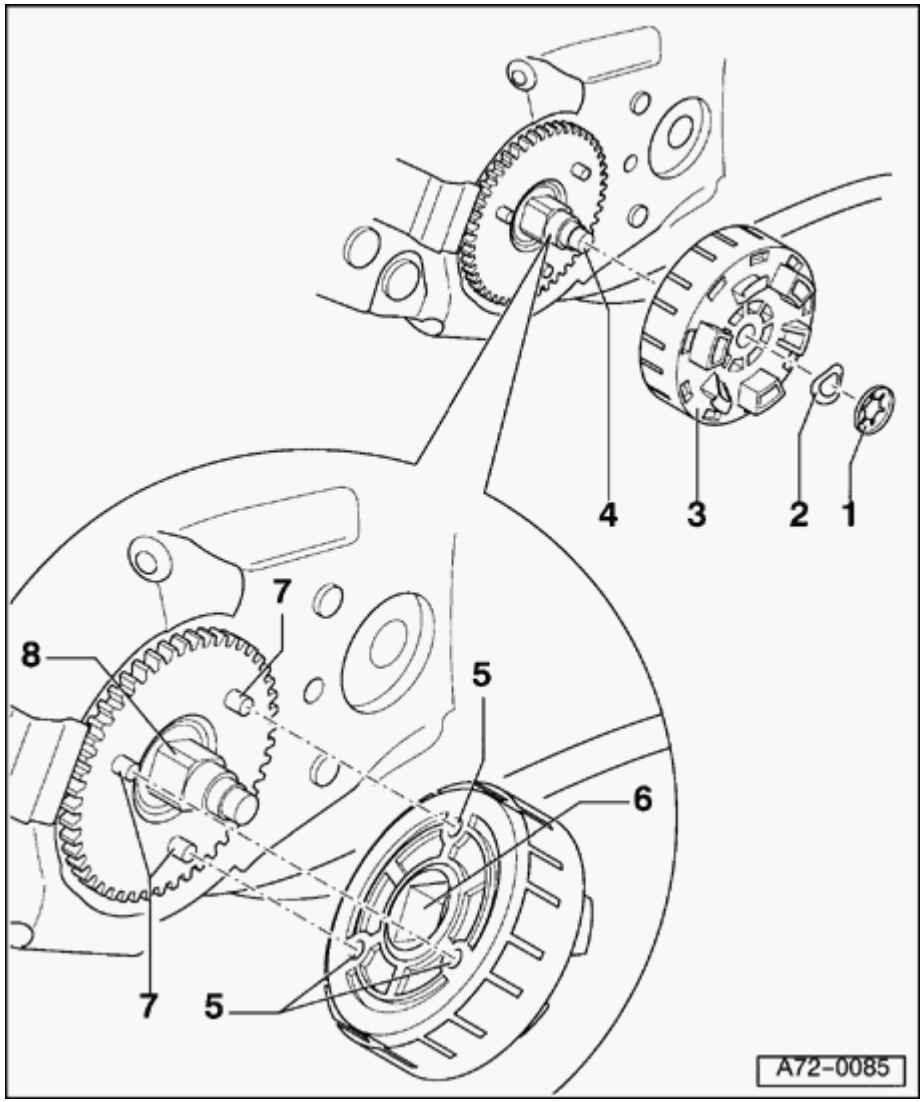
  Tightening torque: 23 Nm (17 ft lb)

- Lift off backrest.

Note:

It is not necessary to remove brake wheel -3- because it is part of the backrest frame.

72-15



Brake element for backrest adjustment, removing and installing

WARNING!

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

1 - Spring washer

2 - Locking washer

3 - Brake element

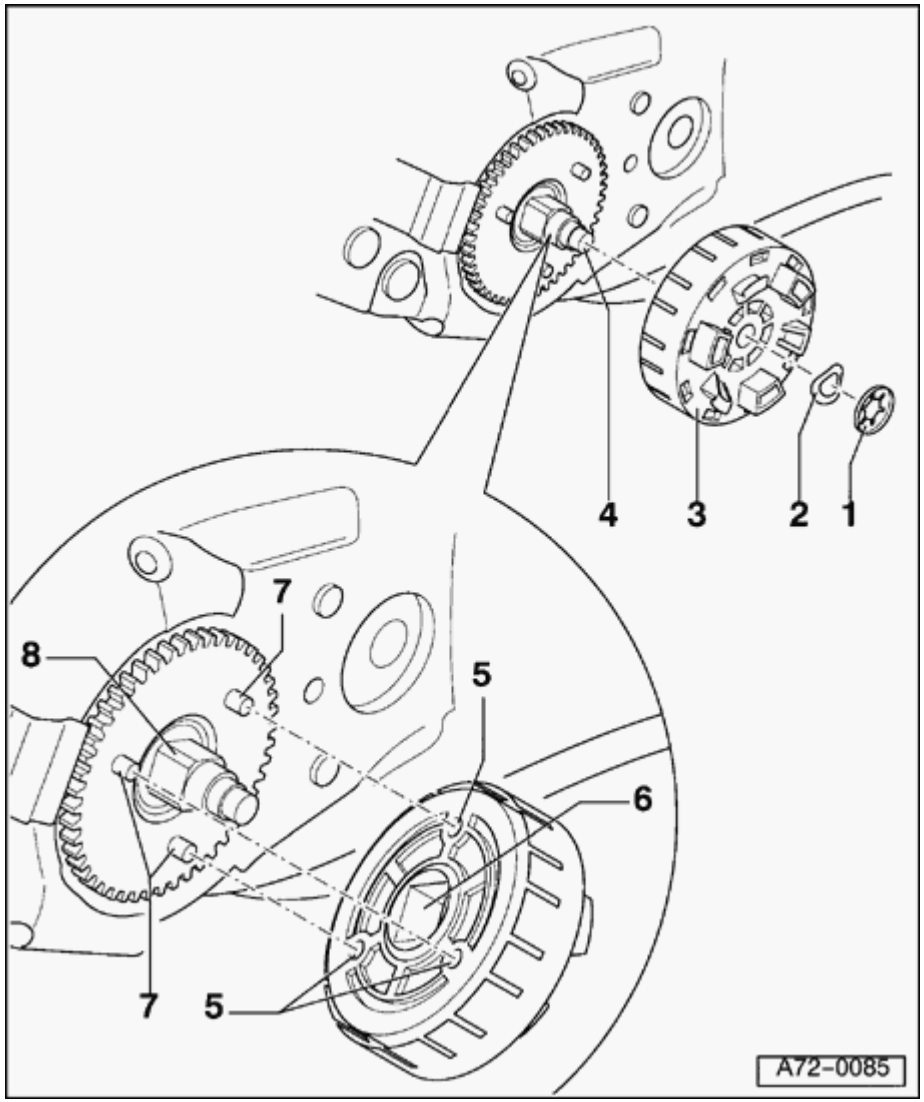
Removing:

- Remove seat ⇒ page 72-2 .
- Remove side seat trim panels ⇒ page 72-17 .
- Using screwdriver, remove spring washer -1-.
- Remove brake element -3- together with locking washer -2- from groove -4-.

Installing:

- When installing, insert catches -7- in mounting -5-, and square -8- in square mounting -6-.
- Tap on new spring washer -1- using socket.

72-16



4 - Groove

5 - Mountings

6 - Square mounting

7 - Catches

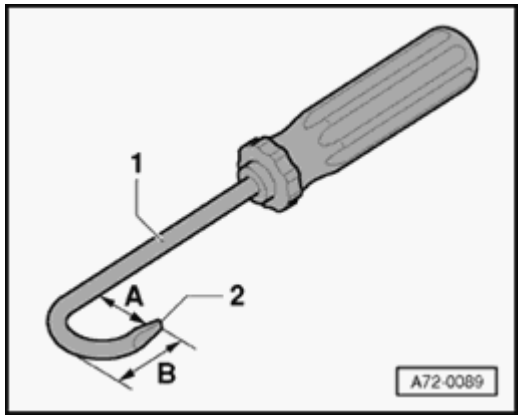
8 - Square

72-17

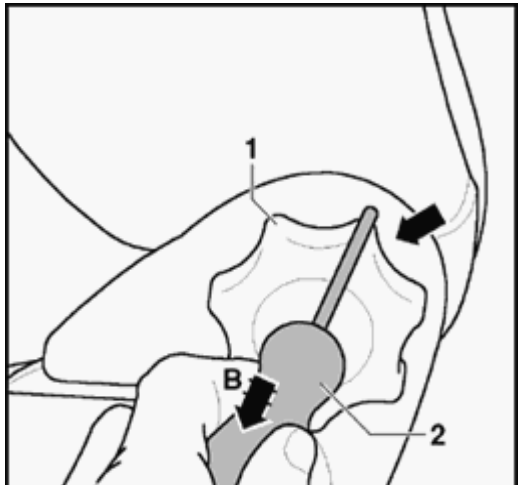
Side seat trim panels, removing and installing

WARNING!

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

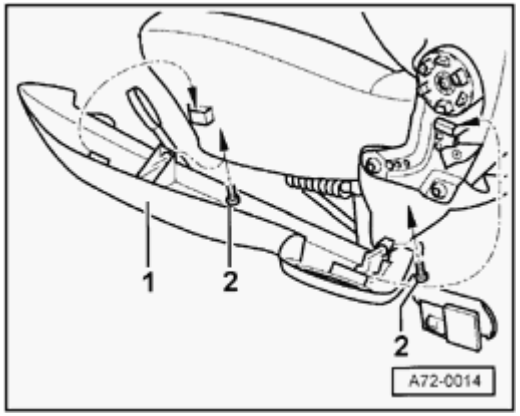


- Fabricating removal tool: Bend screwdriver -1- with width -2- (3.5 mm) and dimensions -A- (20 mm) and -B- (max. 15 mm).
- Remove seat ⇒ page 72-2 .



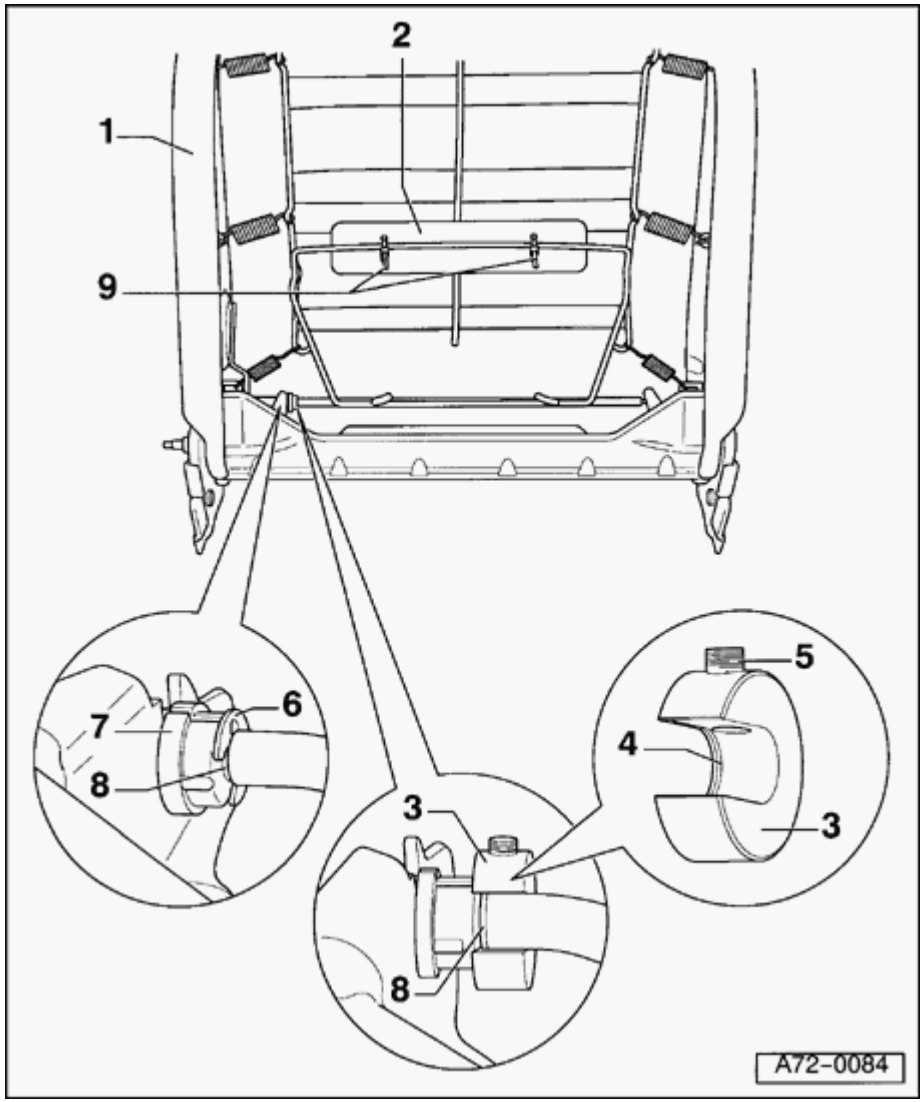
- Turn adjusting wheel -1- from behind until you can see one of the adjusting wheel catches (direction of arrow -A-). If necessary, use flashlight.
- Attach removal tool -2- and pull in direction of arrow -B-.
- Turn adjusting wheel an additional 120° .
- Attach removal tool -2- and pull in direction of arrow -B-.
- Remove adjusting wheel.

72-18



- Remove bolts -2- (2x).
- Pull bottom of trim piece -1- out slightly and detach upward out of front and rear brackets.

72-19



Changing lumbar support and retrofitting plastic insert

Notes:

- *If the lumbar shaft is defective, the circlip can be replaced by a grip support.*
- *A plastic insert can installed by pressing the lumbar support through the upholstery.*

1 - Backrest frame

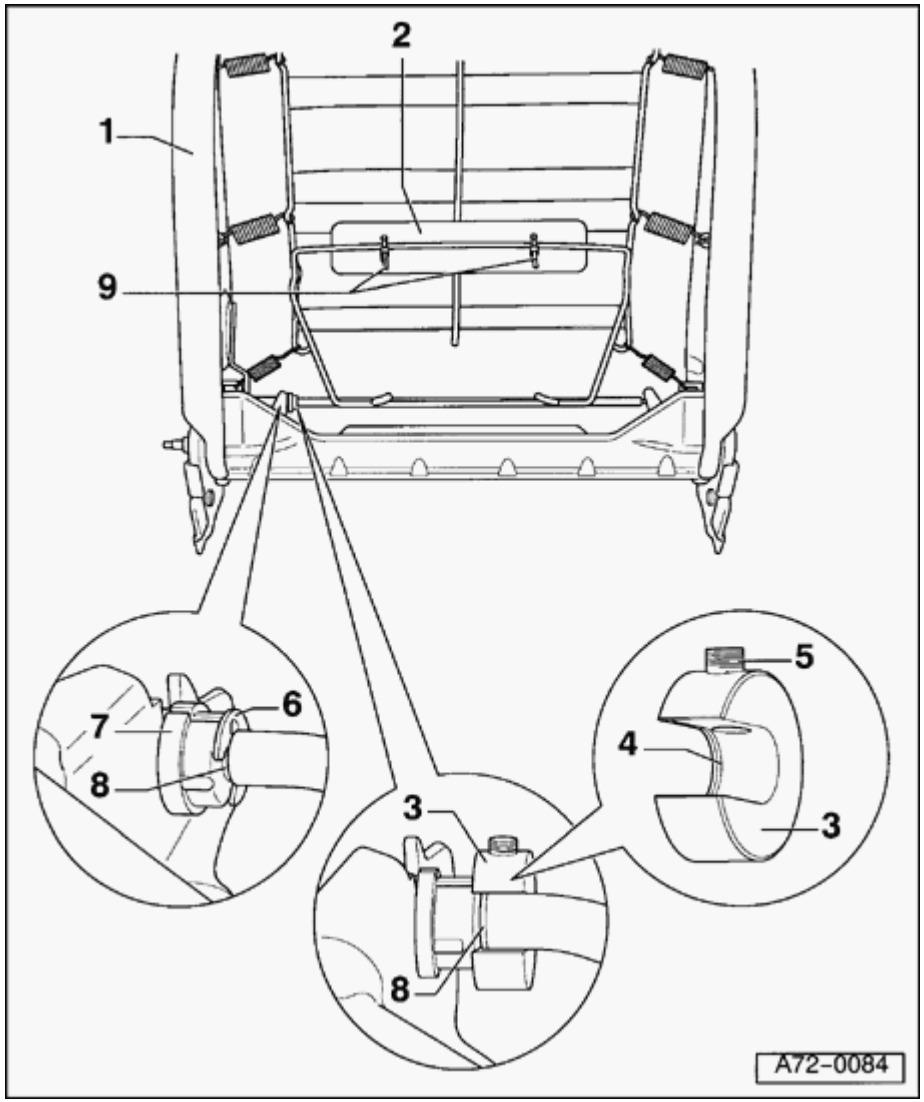
2 - Plastic insert

- Remove backrest cover ⇒ page 74-1 .
- Slide plastic insert between lumbar support and spring wire.
- Secure plastic insert using two tie wraps.

3 - Grip support

- Remove backrest cover ⇒ page 74-1 .
- Remove circlip -6-.
- Push bearing sleeve toward outside and install grip support -3- together with retaining flange -4- into groove -8-.
- Install set screw.

72-20



4 - Retaining flange

5 - Set screw

6 - Circlip

7 - Bearing sleeve

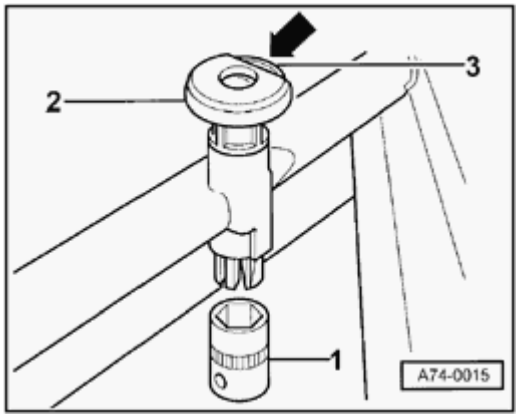
8 - Groove

9 - Tie wraps (2x)

72-21

Headrest, removing and installing

Backrest is shown without cover and padding in illustration.

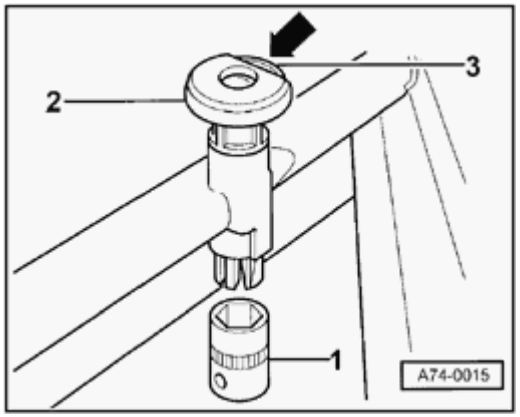


- Push button -3- in direction of arrow and pull headrest up and off.

72-22

Headrest guides, removing and installing (through m.y. 1999)

- Backrest cover, removing and installing ⇒ page 74-1 .



- Using 17mm socket, push headrest guide up and out.
- When installing headrest guide, ensure guide lugs are positioned correctly. Side of guide lugs always face toward outside.
- Headrest guide with button -3- is only located on one side of backrest.

72-23

Headrest guides, removing and installing (from m.y. 2000)

- Backrest cover, removing and installing ⇒ page 74-1 .

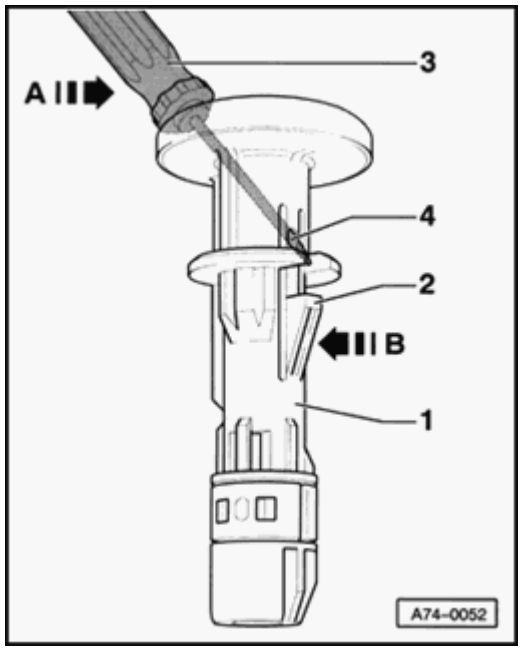


Fig. 1 Removing head restraint guides

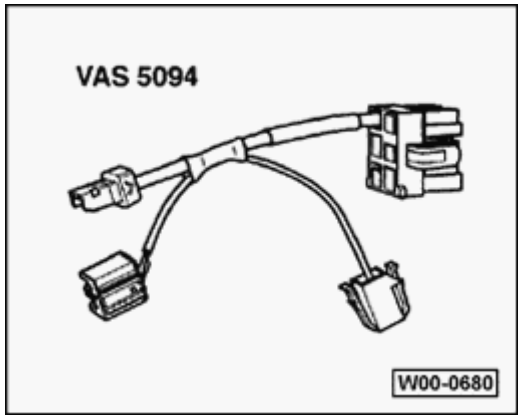
For greater clarity, head restraint guide -1- is shown removed.

- Insert upholstery needle or screwdriver -3- with maximum width of 2 mm into hole -4- (opposite retaining clip for head restraint guide).
- Pry screwdriver -3- in direction of arrow -A-, press retainer tab -2- in direction of arrow -B- and pull out head restraint guide -1-.

72-24

Recaro seat

Special tools and equipment



VAS5094 airbag adapter

Connecting ⇒ page 72-9 .

72-25

Recaro seat, removing and installing

WARNING!

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

Notes:

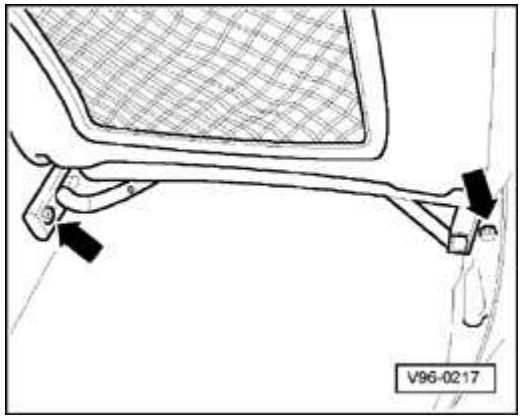
- *Slight changes may have to be made to removal and installation procedures, depending upon equipment installed in vehicle.*
- *For memory and power seats, move seat fully up and back before disconnecting the battery.*
- *Before disconnecting the battery, determine the radio code.*

72-26

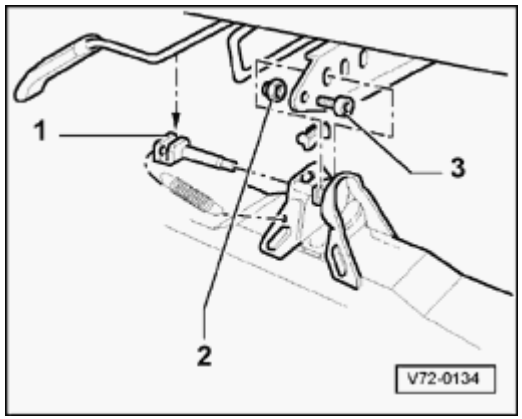
WARNING!

Disconnect battery Ground (GND) strap before removing seat.

- Push seat forward.



- Remove cap (right arrow) and remove Phillips-head screw located under cap.
- Remove screw (left arrow) and remove stopper toward rear.



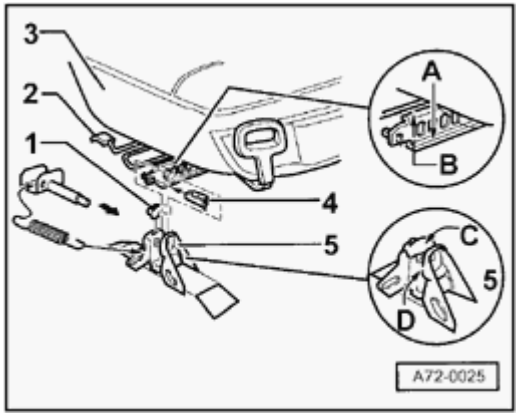
- Remove cap nut -2- and socket-head screw -3-.

  Tightening torque: 8 Nm (71 in. lb)
- Release retaining rod -1- and pull seat toward rear out of guide rails.

Note:

The attachment with socket-head screw -3- is replaced by a stop spring as a running change.

72-27



- Unclip stop spring -4-.
- Pull release lever up and push out seat -3- to rear.

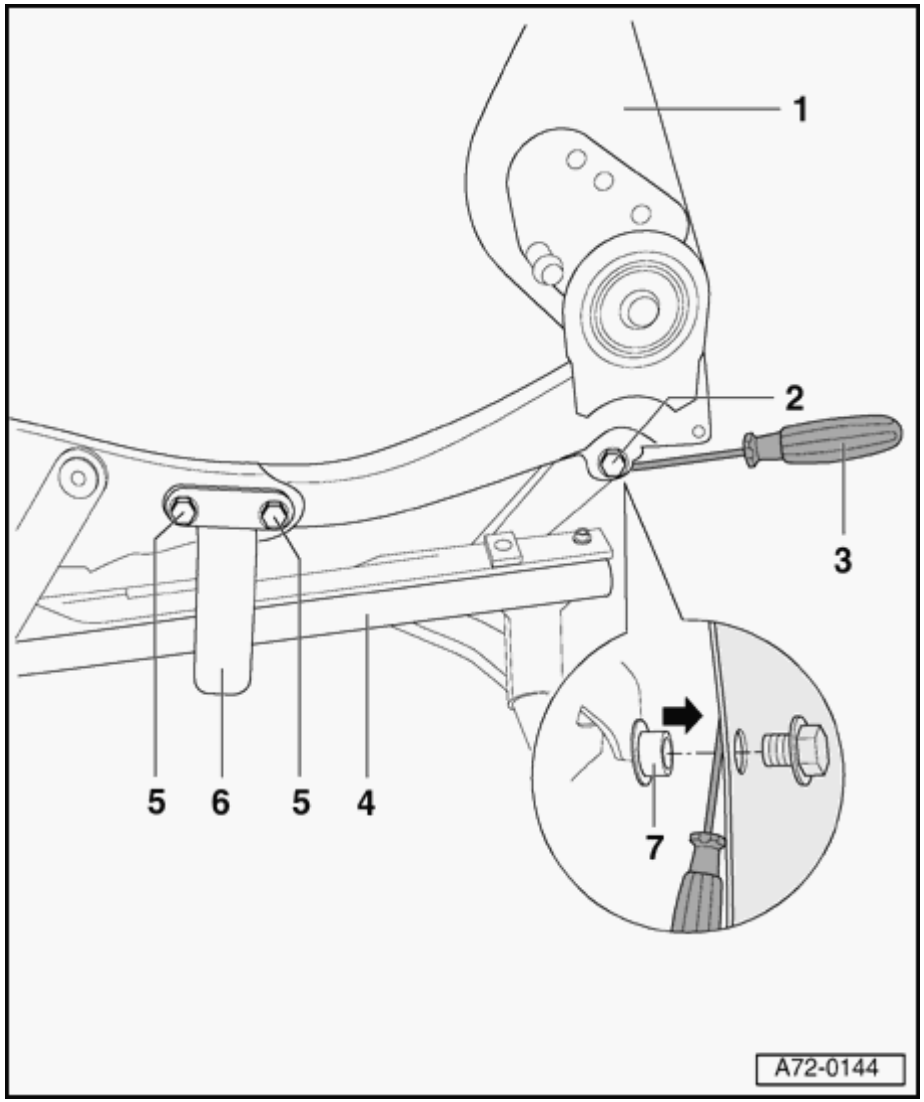
Note:

For vehicles with heated seats, disconnect the harness connector.

CAUTION!

When sliding seat out of guide rails, ensure that the carpet is not ripped.

72-28



Backrest, removing and installing

WARNING!

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

Note:

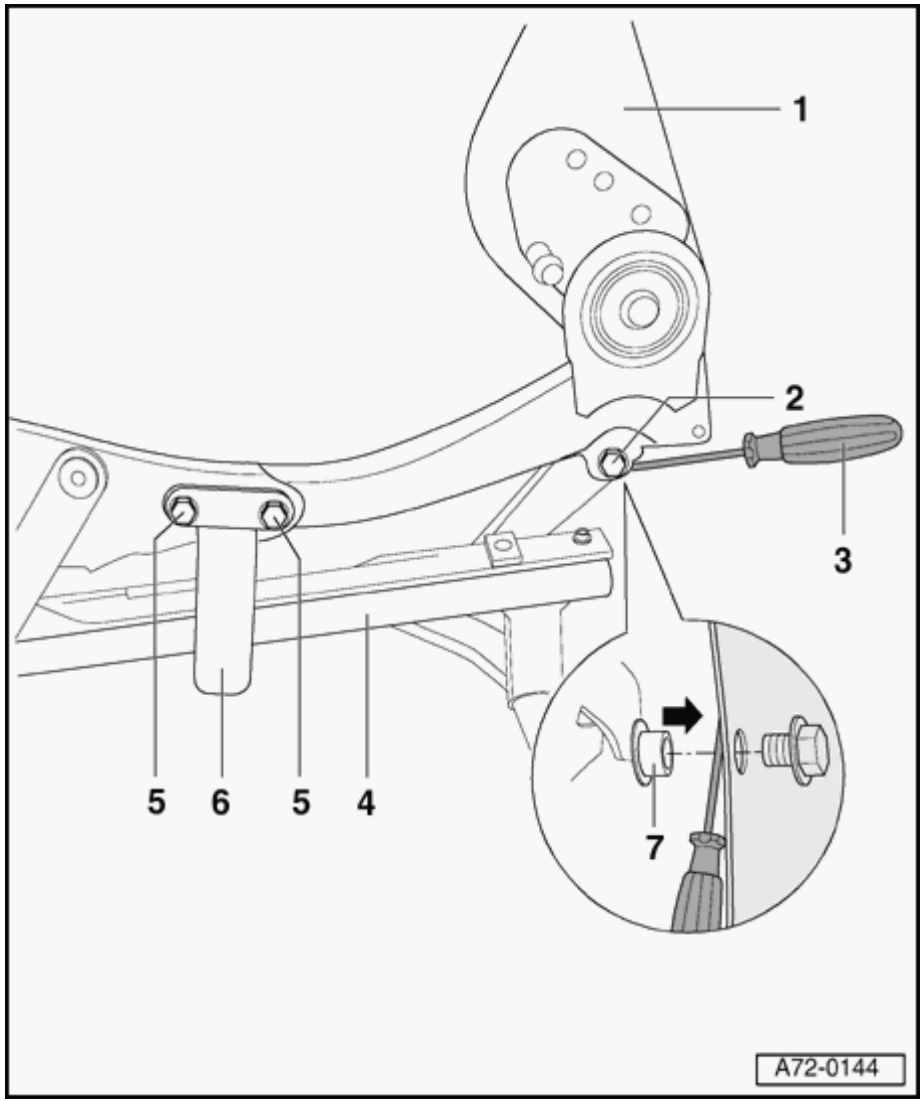
Seat is shown without upholstery and from the door sill side in illustration.

1 - Backrest frame

Removing:

- Remove seat ⇒ page 72-25 .
- Remove side seat trim panels ⇒ page 72-36 .
- Remove seat cushion ⇒ page 72-32 .
- Disconnect harness connector to backrest heater element ⇒ page 74-29 .
- Disconnect purple/yellow side airbag harness connector ⇒ page 69-81 .
- Remove bolts -2- (2x).
- Remove bolts -5- (4x).
- Using screwdriver -3-, detach backrest frame -1- at securing points.

72-29



Installing:

Note:

Always replace bolts -2- and -5-.

- Install bushing -7- on both sides of rear securing points of backrest so collar faces toward inside.
- Slide backrest frame -1- from rear into seat frame -4-.
- Install bolts -2- and -5-, but do not tighten.
- Tighten bolts -2- and -5-.

2 - Bolts (2x)

- 23 Nm (17 ft lb)

3 - Screwdriver

4 - Seat frame

5 - Bolts(4x)

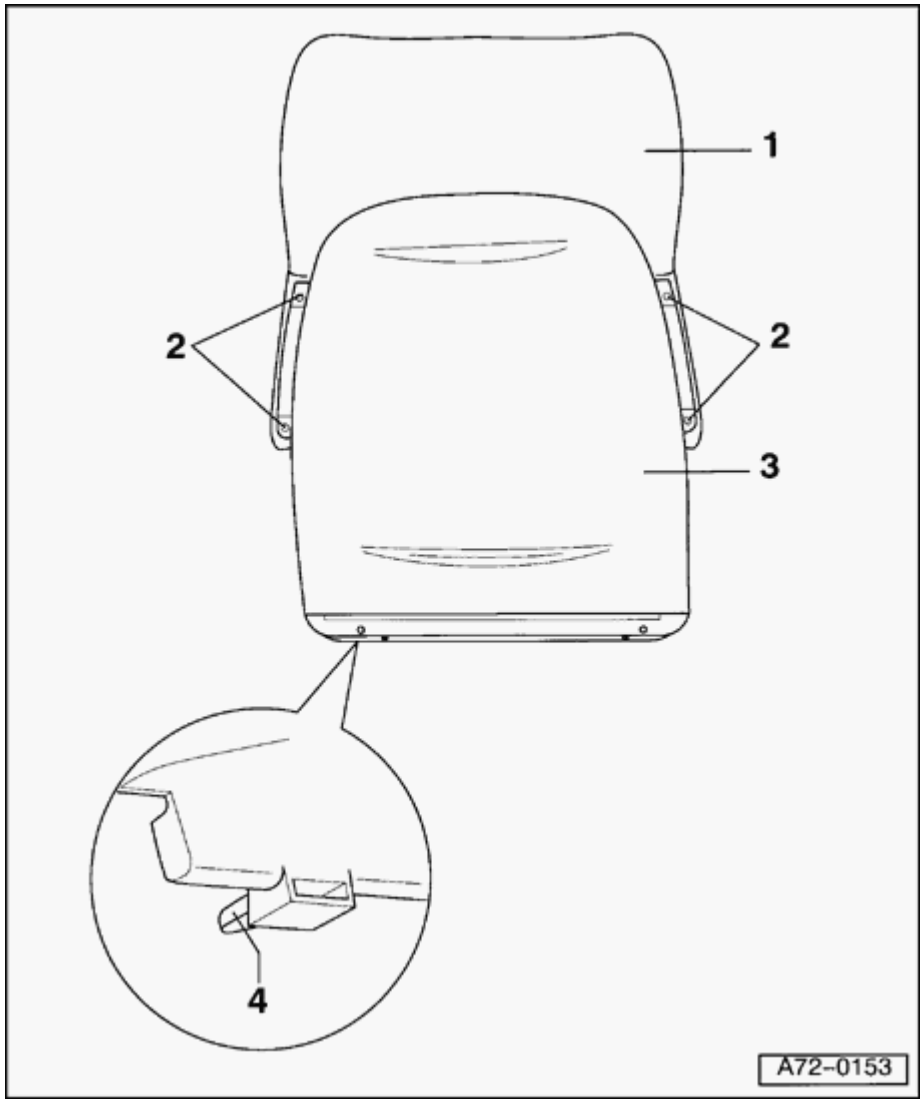
- 23 Nm (17 ft lb)
- Door sill side longer than tunnel side

6 - Bracket

- Only on door sill side

7 - Bushings (2x)

72-30



Backrest shell, removing and installing

WARNING!

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

1 - Backrest

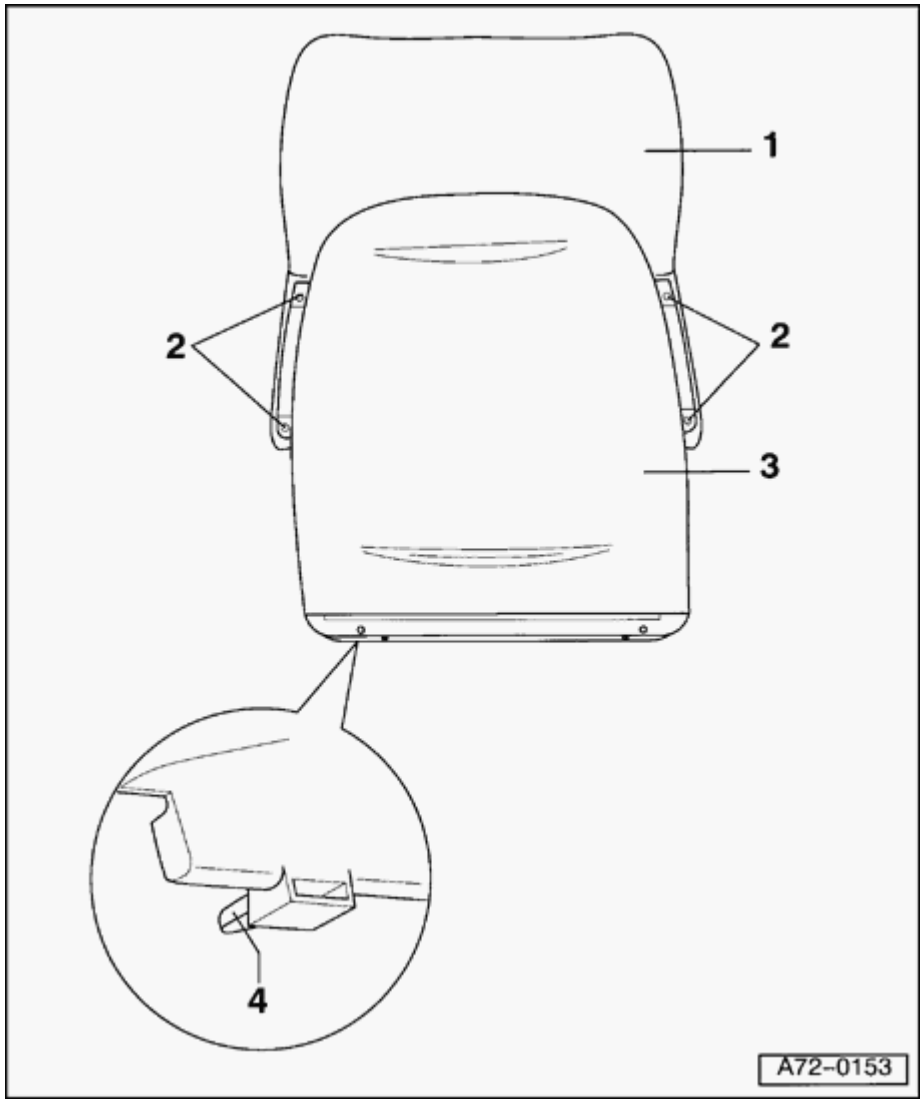
1 - Bolts (4x)

2 - Backrest shell

Removing:

- Move seat fully up.
- Remove seat ⇒ page 72-25 .
- Remove trim panels ⇒ page 72-41 .
- Remove side airbag module ⇒ page 69-81 .
- Remove backrest upholstery ⇒ page 74-22 .
- Remove spring cover ⇒ page 72-43 .
- Unbolt bolts -2- (4x) on side of backrest shell -3-.
- Place seat so backrest shell -3- is accessible from below.
- Push both clips -4- on bottom of backrest shell -3- slightly toward each other.

72-31



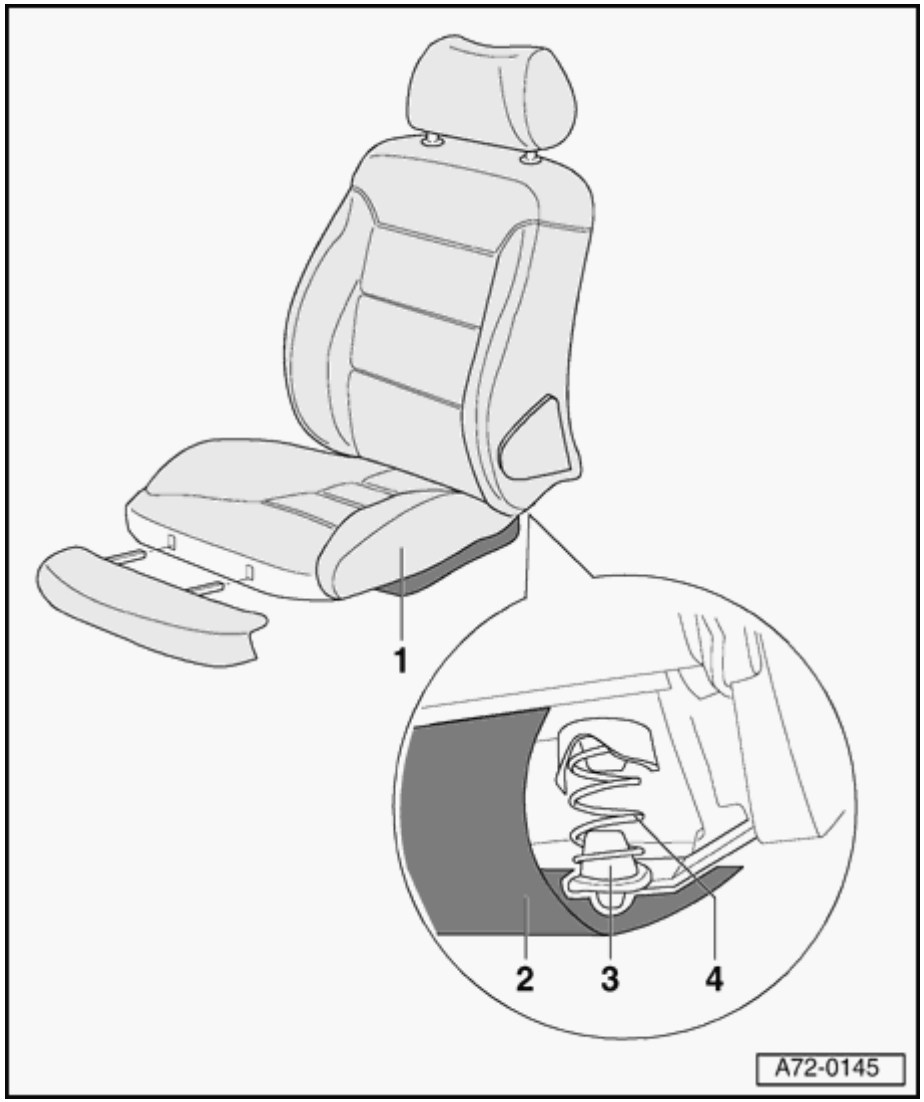
- Detach backrest shell from seat -3- from below.
- Remove backrest shell -3- up and out.

Installing:

- Attach backrest shell -3- at upper part of backrest -1-.
- Push backrest shell -3- down until clips -4- engage.
- Tighten bolts -2- (4x).

3 - Clips (2x)

72-32



Seat cushion, removing and installing

WARNING!

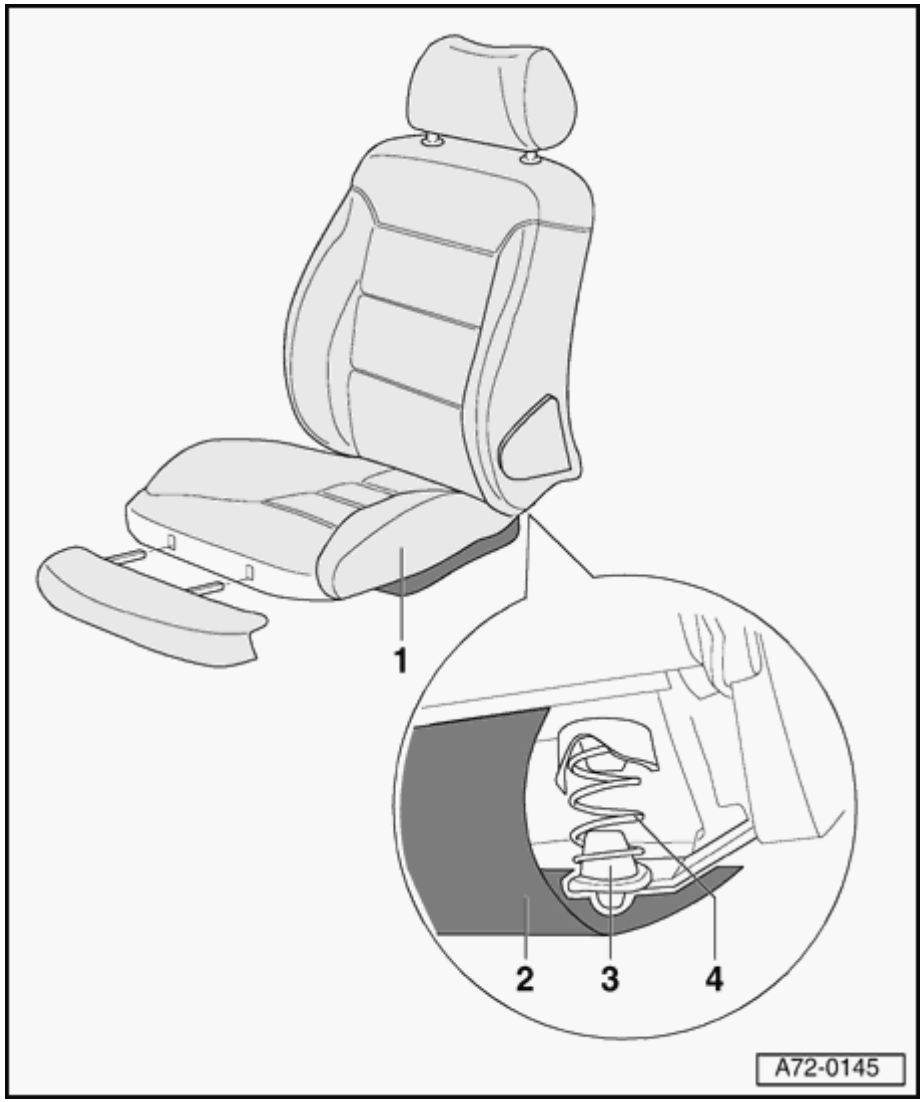
Before starting work on seats, connect VAS 5094 airbag adapter ⇒ page 72-9 .

1 - Seat cushion

Removing:

- Move seat fully up.
- Remove seat ⇒ page 72-25 .
- Remove seat cushion extension, front cover panel and guide sleeves ⇒ page 72-34 .
- Remove trim panels ⇒ page 72-41 .
- Remove spring cover ⇒ page 72-43 .
- Detach electrical cover -2- under seat.
- If installed, disconnect seat cushion wiring (seat heater, seat-occupied sensor).
- Push up front of seat cushion -1-.
- Remove seat cushion -1- forward and out.

72-33



Note:

Both seat springs and their related rubber buffers located in the rear between the seat cushion and the backrest fall out by themselves.

Installing:

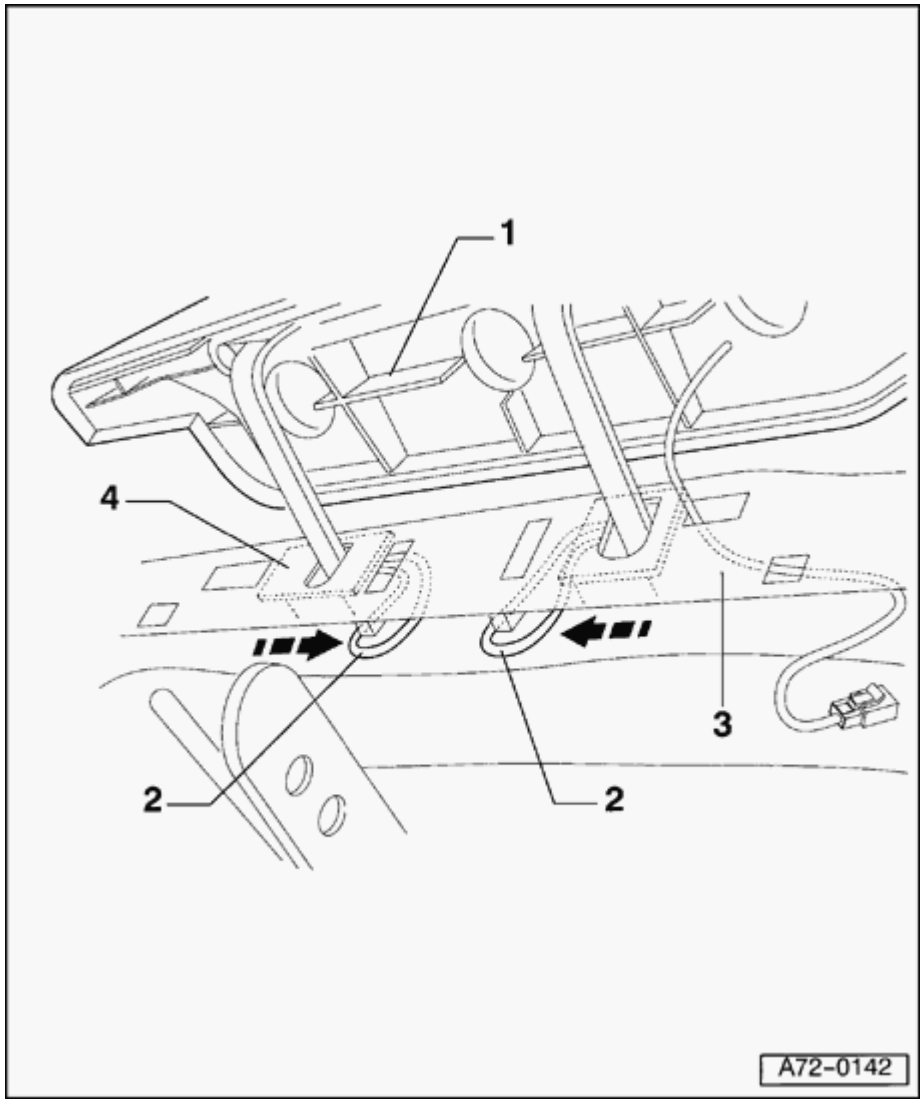
- Ensure rubber buffers 3 are correctly located in mountings on backrest.
- Install springs -4- in seat cushion.
- Insert electrical cover -2- between backrest and seat cushion.
- Install seat cushion -1- so springs -4- sit on rubber buffers -3- at backrest.
- Push seat cushion -1- toward rear.
- Push down on front of seat cushion -1-.
- If necessary, attach wiring in seat cushion.
- Install electrical cover beneath seat.

2 - Electrical cover

3 - Rubber buffers (2x)

4 - Springs (2x)

72-34



Seat cushion extension, removing and installing

WARNING!

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

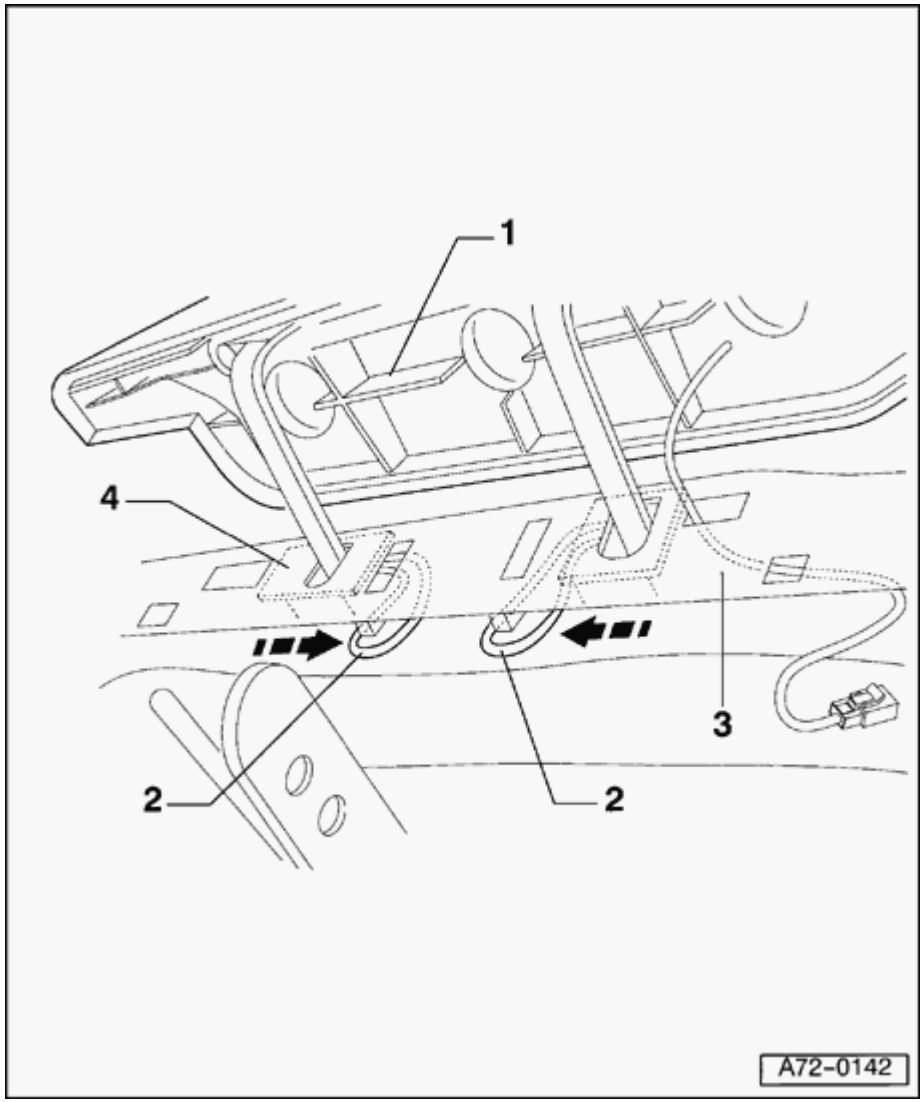
1 - Seat cushion extension

Removing:

- Move seat fully up.
- Remove seat ⇒ page 72-25 .
- Using pliers or screwdriver push both springs -2- inward (arrow).
- Remove seat cushion extension -1-.
- If necessary, disconnect seat heater wiring on both sides.
- Pull front cover -3- up and pull cable through.

2 - Springs (2x)

72-35



3 - Front cover

Removing:

- If necessary (e.g. when removing seat cushion), remove cover completely.

Installing:

- Insert seat heater cable harness connectors through holes on both sides of cover -3- and connect harness connectors.
- Attach cover.

4 - Guide sleeves (2x)

Removing:

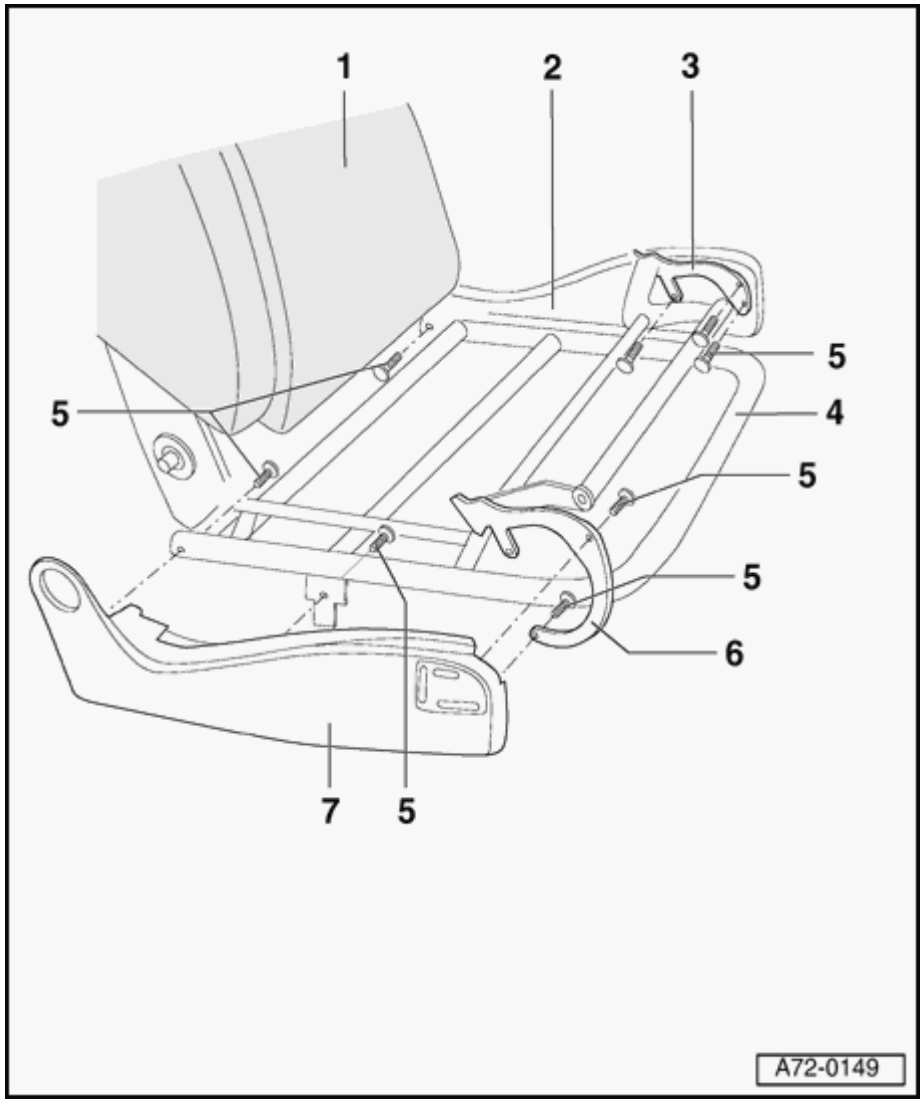
- If necessary (e.g. when removing seat cushion), push guide sleeves -4- together with groove-lock pliers and pull guide sleeves out.

Installing:

Note:

Always replace guide sleeves when installing.

72-36



Side seat trim, removing and installing

WARNING!

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

1 - Backrest

2 - Side seat trim, tunnel side

Note:

It is not necessary to disconnect any wiring when removing side seat trim on tunnel side. Remainder of removal procedure is identical to removal of side seat trim on door sill side.

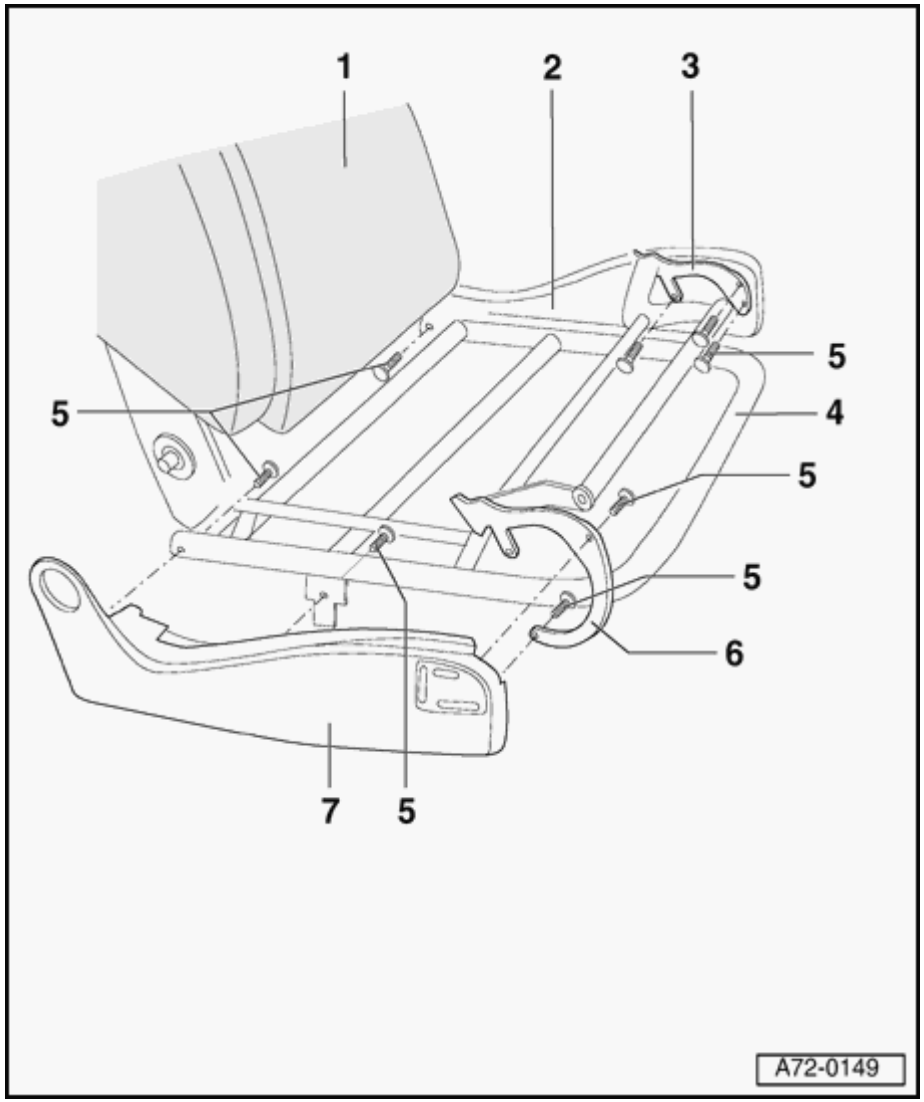
3 - Bracket for side seat trim, tunnel side

4 - Seat frame

5 - Bolts (4x per trim piece)

6 - Bracket for side seat trim, door sill side

72-37



7 - Side seat trim, door sill side

Removing:

- Move seat fully down.
- Remove seat ⇒ page 72-25 .
- Remove mounting trim ⇒ page 72-41 .
- Remove seat cushion ⇒ page 72-32 .
- Rotate belt buckle downward.
- Disconnect all harness connectors that run from circuit board to side seat trim on door sill side.
- Cut all tie wraps on wiring harness using diagonal cutter.
- Unbolt bolts -5- (4x) on side seat trim.

Installing:

- Attach trim on lower mounting of backrest frame.
- Secure side seat trim with bolts -4- (4x).

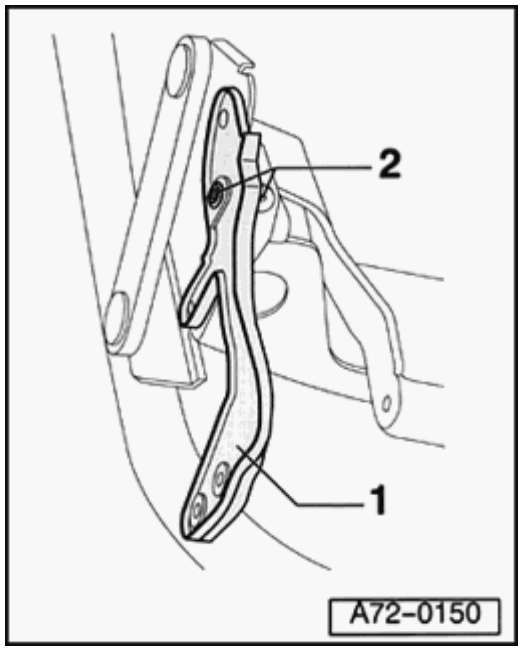
72-38

Side seat trim bracket, removing and installing

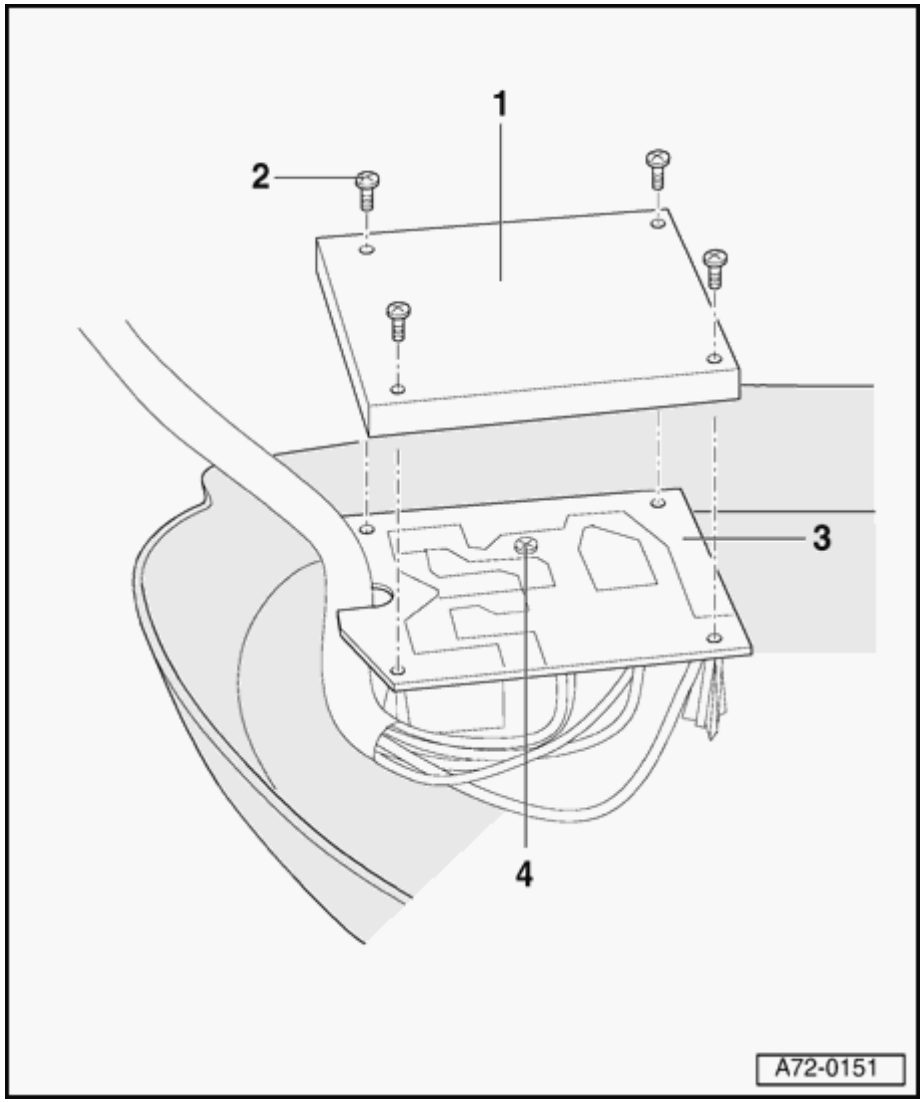
WARNING!

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

- Move seat to upper-most position.
- Remove seat ⇒ page 72-25 .
- Remove side seat trim ⇒ page 72-36 .
- Drill though both rivets -2- at front of side seat trim bracket -1- and remove bracket.



72-39



Switch unit circuit board, removing and installing

WARNING!

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

CAUTION!

Only the switch circuit board can be removed. The switches in the side seat trim cannot be replaced separately.

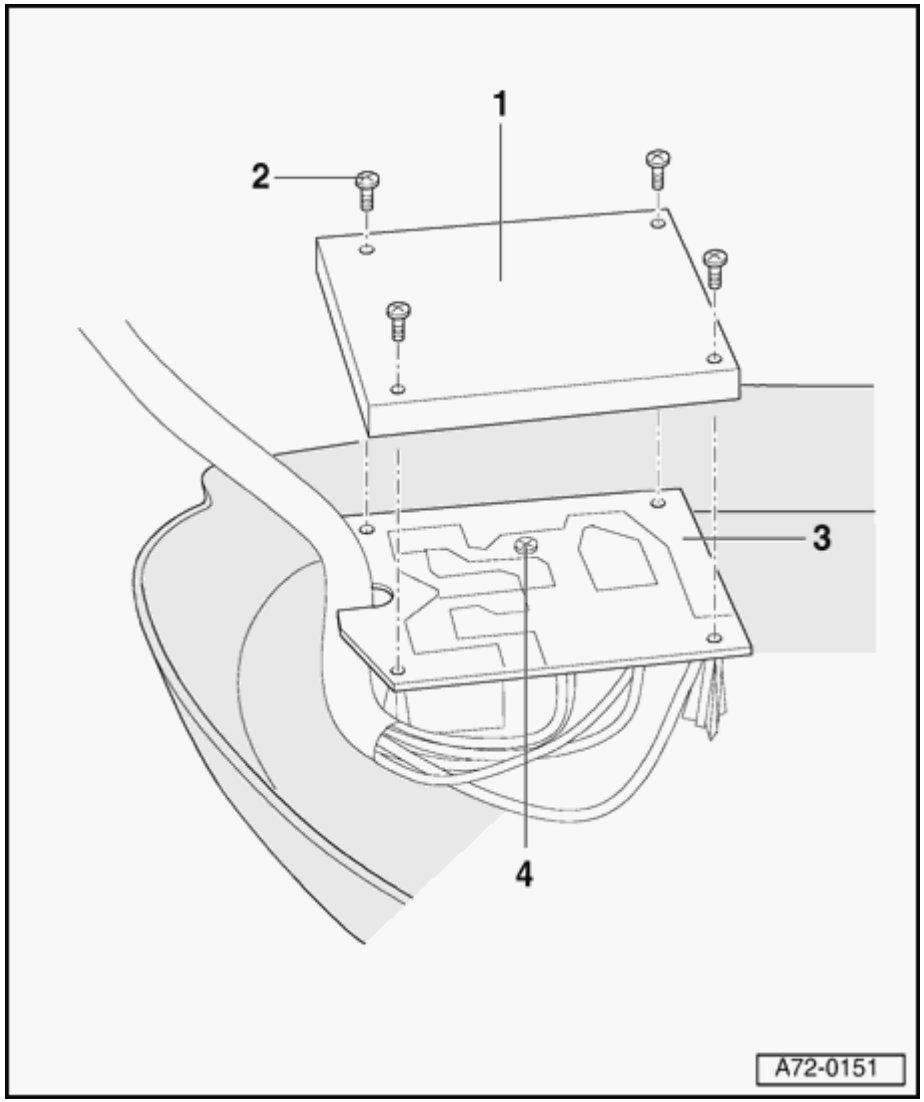
Note:

The switch unit circuit board is installed in the side seat trim on door sill side.

1 - Plastic cover

2 - Bolts (4x)

72-40



3 - Switch unit circuit board with wiring harness

Removing:

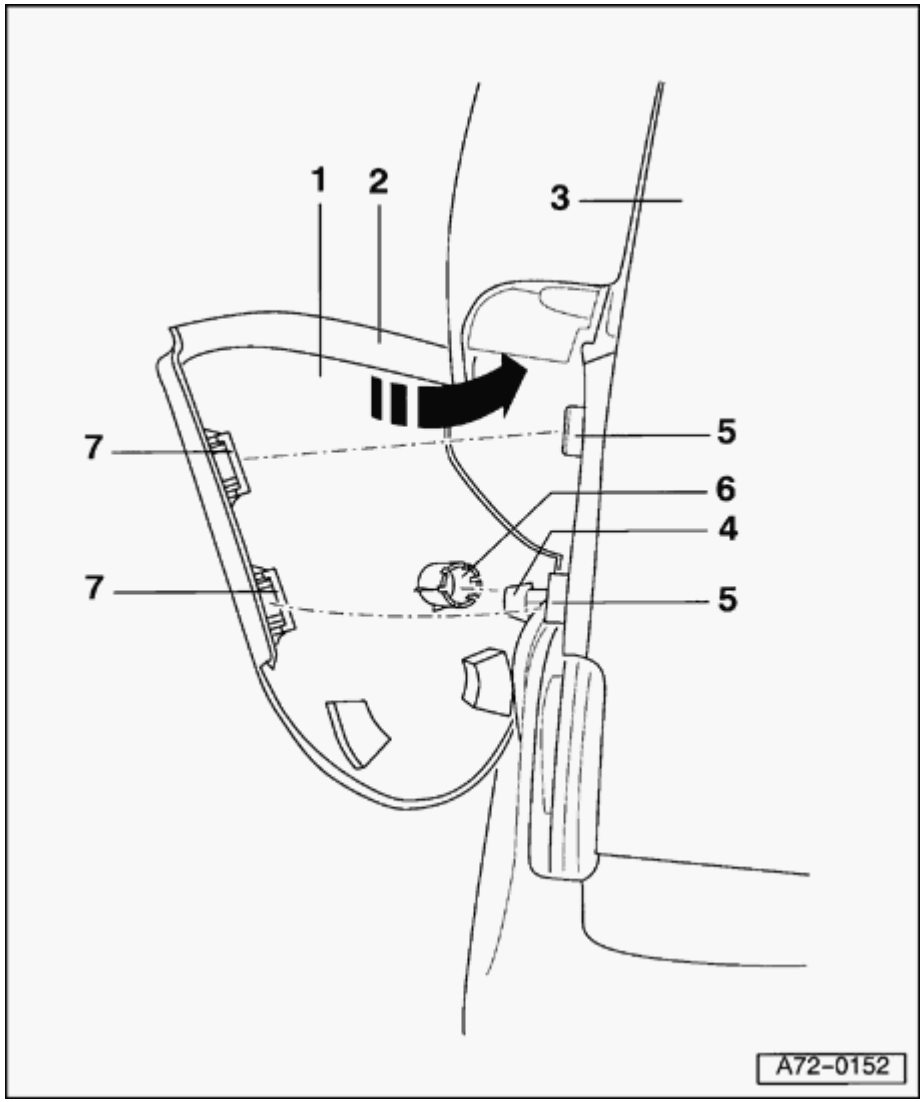
- Move seat to bottom-most position.
- Remove seat ⇒ page 72-25 .
- Remove door sill side seat trim ⇒ page 72-36 .
- Cut all tie wraps on wiring harness using diagonal cutter.
- Disconnect all wiring harness connectors to circuit board.
- Remove bolts -2- (4x) at plastic cover -1- located above circuit board -3-.
- Remove plastic cover -1-.
- Remove bolt -4-.
- Carefully remove circuit board.

Installing:

- Carefully install circuit board so circuit board contacts seat correctly on contacts for switch located in side seat trim.

4 - Bolt (1x)

72-41



Mounting trim, removing and installing

WARNING!

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

1 - Mounting trim

Removing:

- Remove seat ⇒ page 72-25 .
- Remove mounting trim -1- downward, so pins -4- and tabs -5- are pulled out of catches -6- and -7-.
- Pull out mounting trim -1-.

Installing:

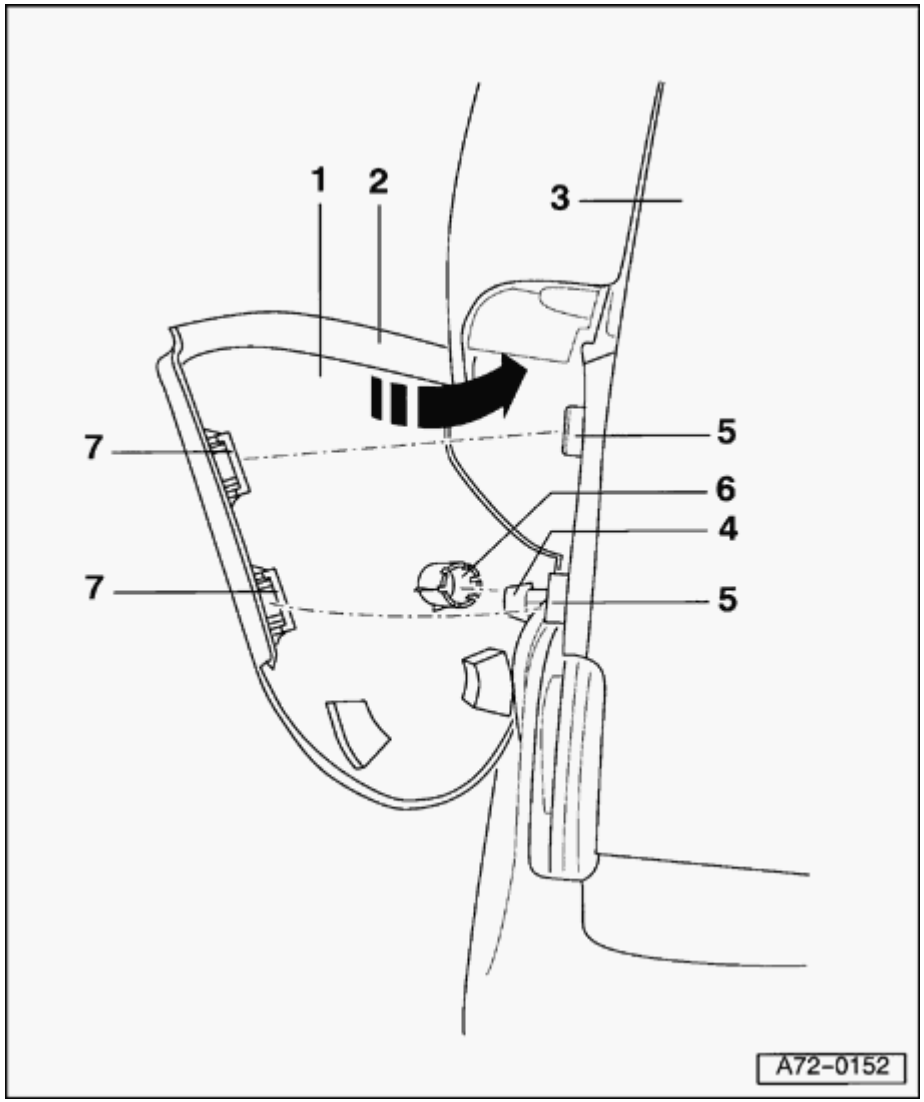
- On same side of side airbag unit, insert insertion edge -2- under side airbag module in direction of arrow.
- Install mounting trim evenly so pins -4- and tabs -5- engage in catches -6- and -7-.

2 - Insertion edge

- Only on same side of side airbag module

3 - Backrest

72-42



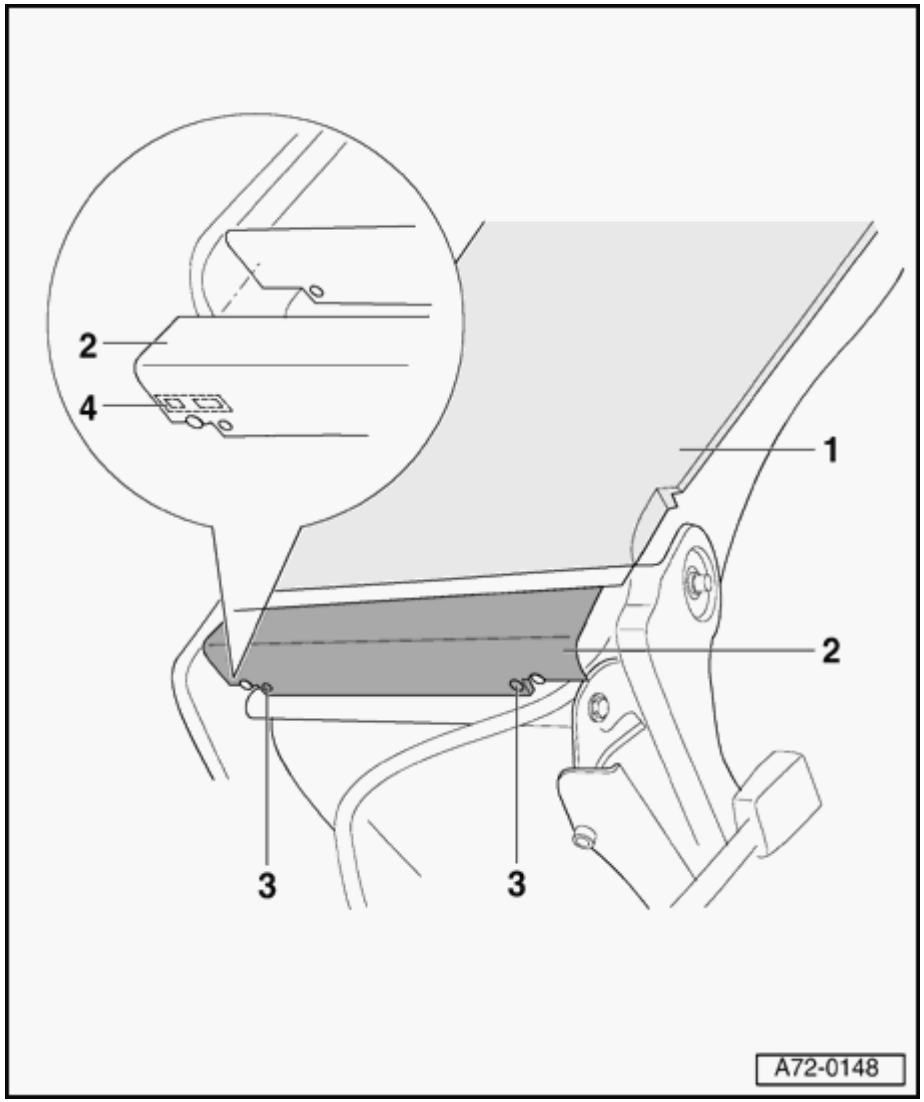
4 - Pins

5 - Clip

6 - Pin catch

7 - Tab catches

72-43



Spring cover, removing and installing

WARNING!

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

1 - Backrest

2 - Spring cover

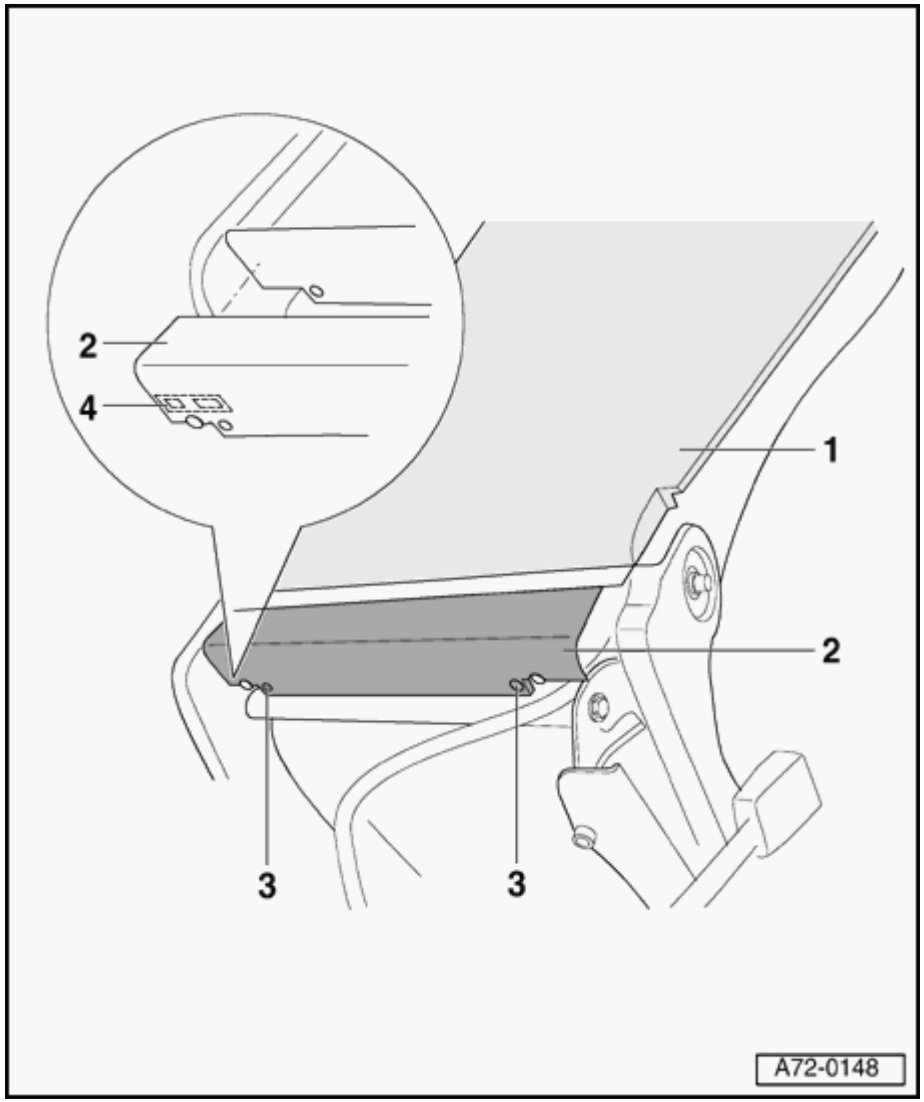
Removing:

- Move seat fully up.
- Unbolt two bolts -3- on left and right of spring cover -2-.
- Pull off spring cover -2- from right-side of seat.
- Then pull spring toward right so clip -4- detaches from left-side of spring cover.
- Remove spring cover -2- from seat.

Installing:

- Install left side of spring cover -1- with clip -4-.
- Push spring cover -2- onto right-side until it engages.
- Tighten both bolts -3-.

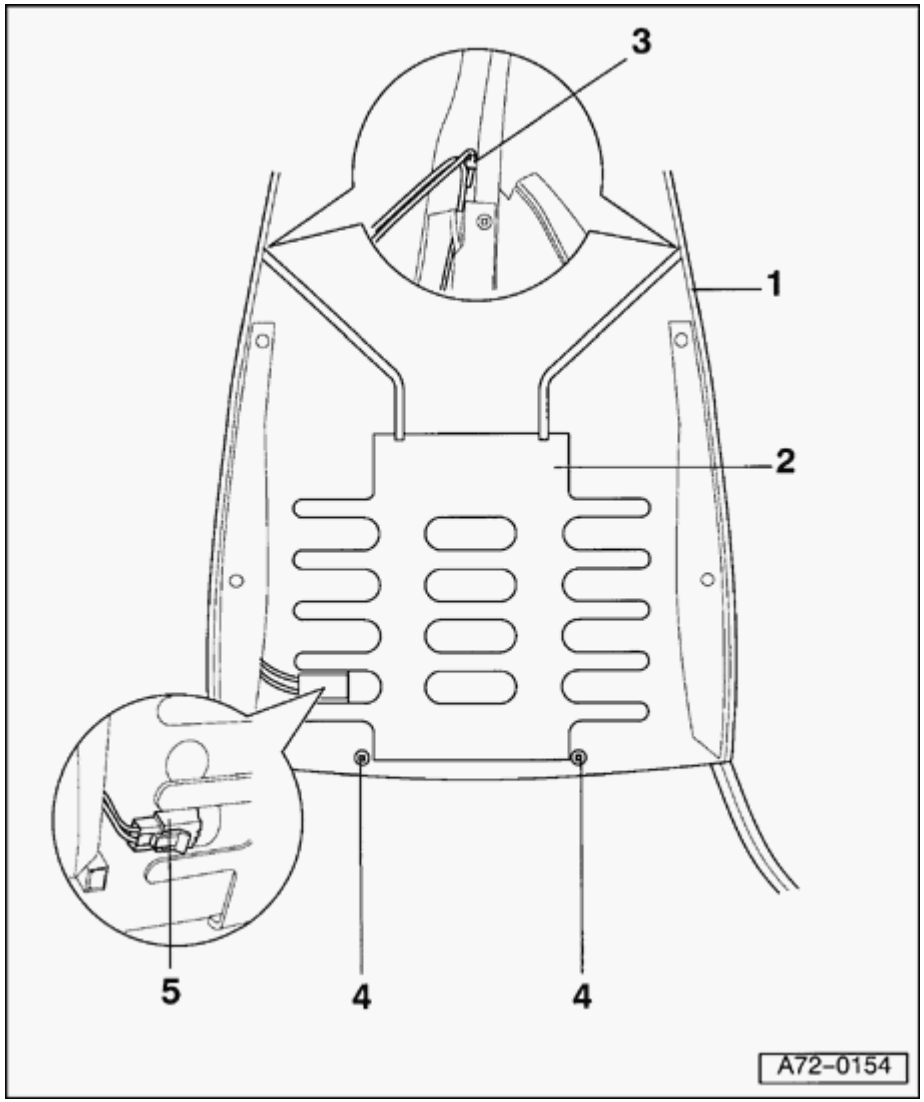
72-44



3 - Bolts (2x)

4 - Clip

72-45



2-way lumbar support, removing and installing

WARNING!

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

1 - Backrest frame

2 - 2-way lumbar support

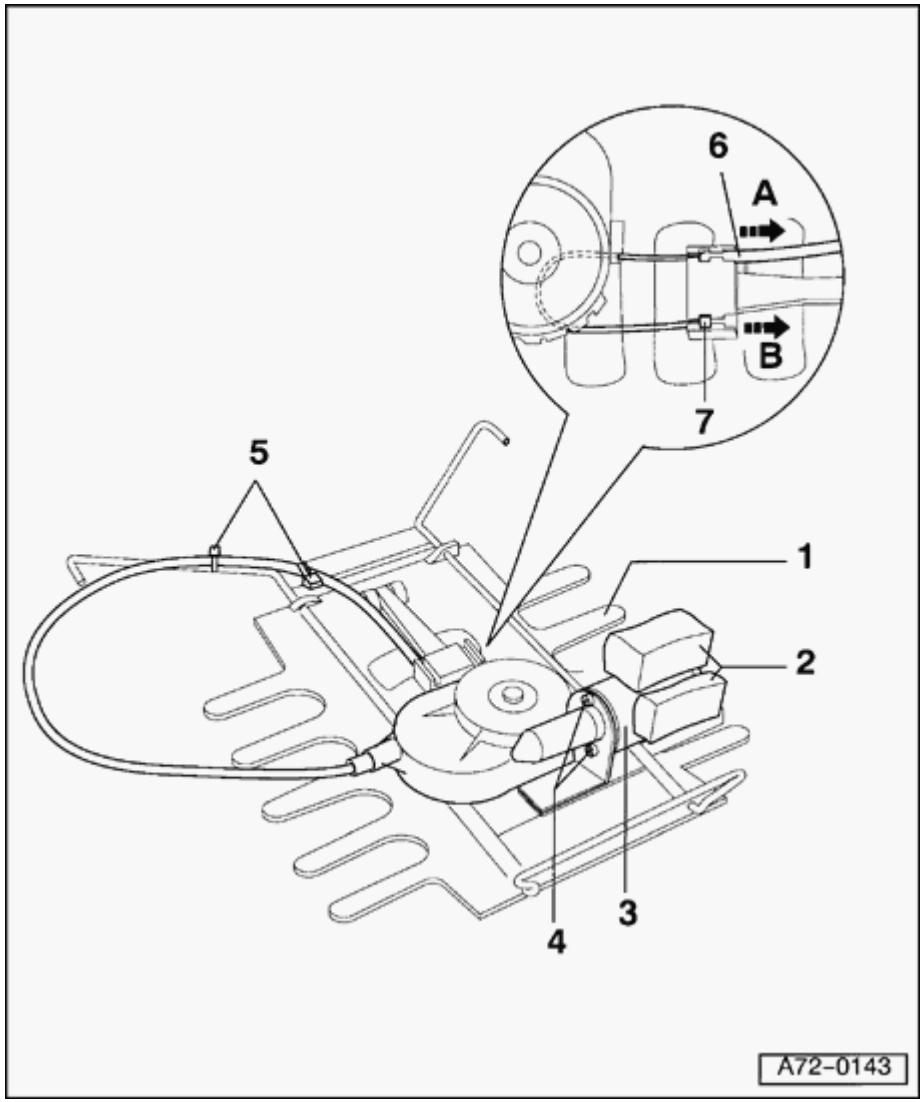
- Remove seat ⇒ page 72-25 .
- Remove backrest upholstery ⇒ page 74-22 .
- Disconnect harness connector for lumbar support motor -5-.
- Remove bolts -4- (2x).
- Remove bolts -4- (2x).

3 - Retaining hook

4 - Bolts (2x)

5 - Harness connector for lumbar support motor

72-46



Lumbar support motor with transmission, removing and installing

WARNING!

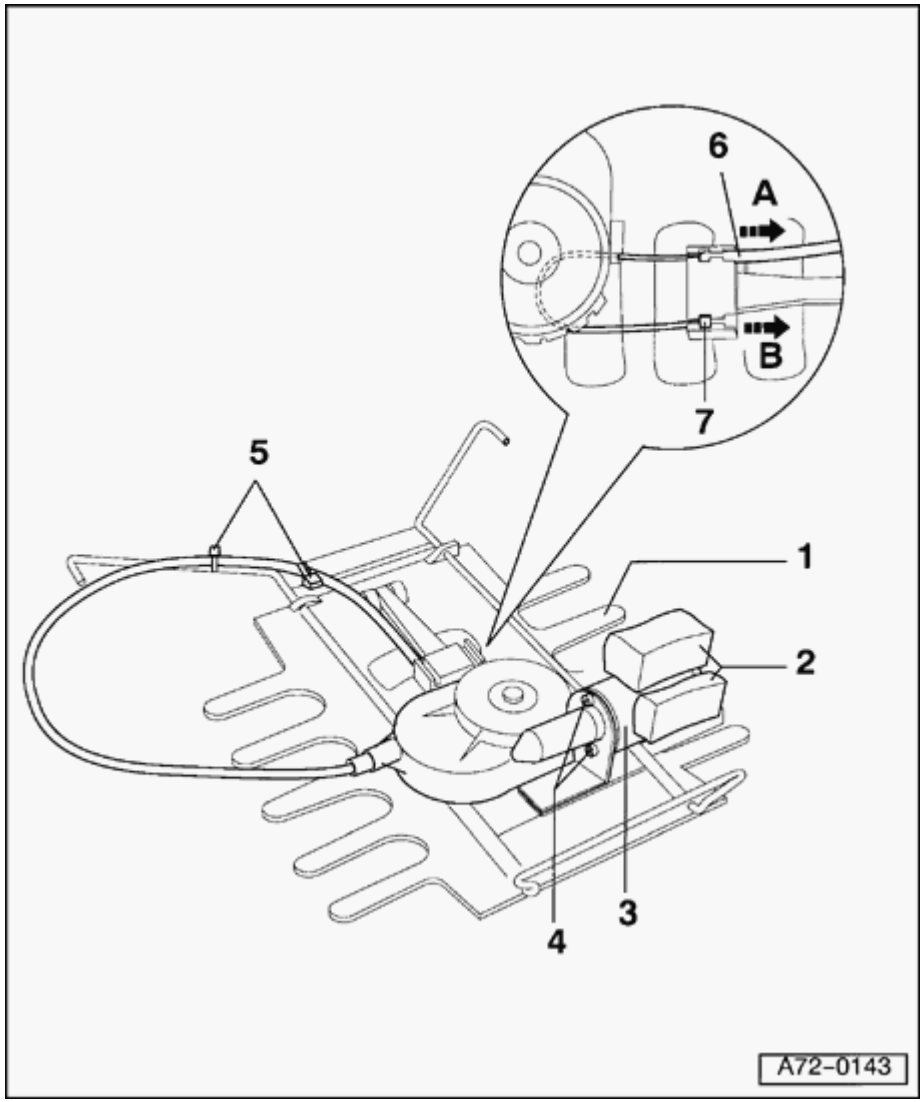
Before starting work on seats, connect VAS 5094 airbag adapter ⇒ ***page 72-9*** **.**

1 - Lumbar support body

2 - Foam pieces (2x)

- If not available as a replacement part, detach foam pieces from old motor and attach to new motor

72-47



3 - Motor with transmission and Bowden cable

- Remove seat ⇒ page 72-25 .
- Remove 2-way lumbar support ⇒ page 72-45 .
- Cut tie wraps -5- (2x).
- Push lumbar support body together.
- Pull Bowden cable -6- in direction of arrow -A-.
- Detach Bowden cable -6- at pulley.
- Pull set pin -7- in direction of arrow -B- out of bracket.
- Remove bolts -4- (2x).

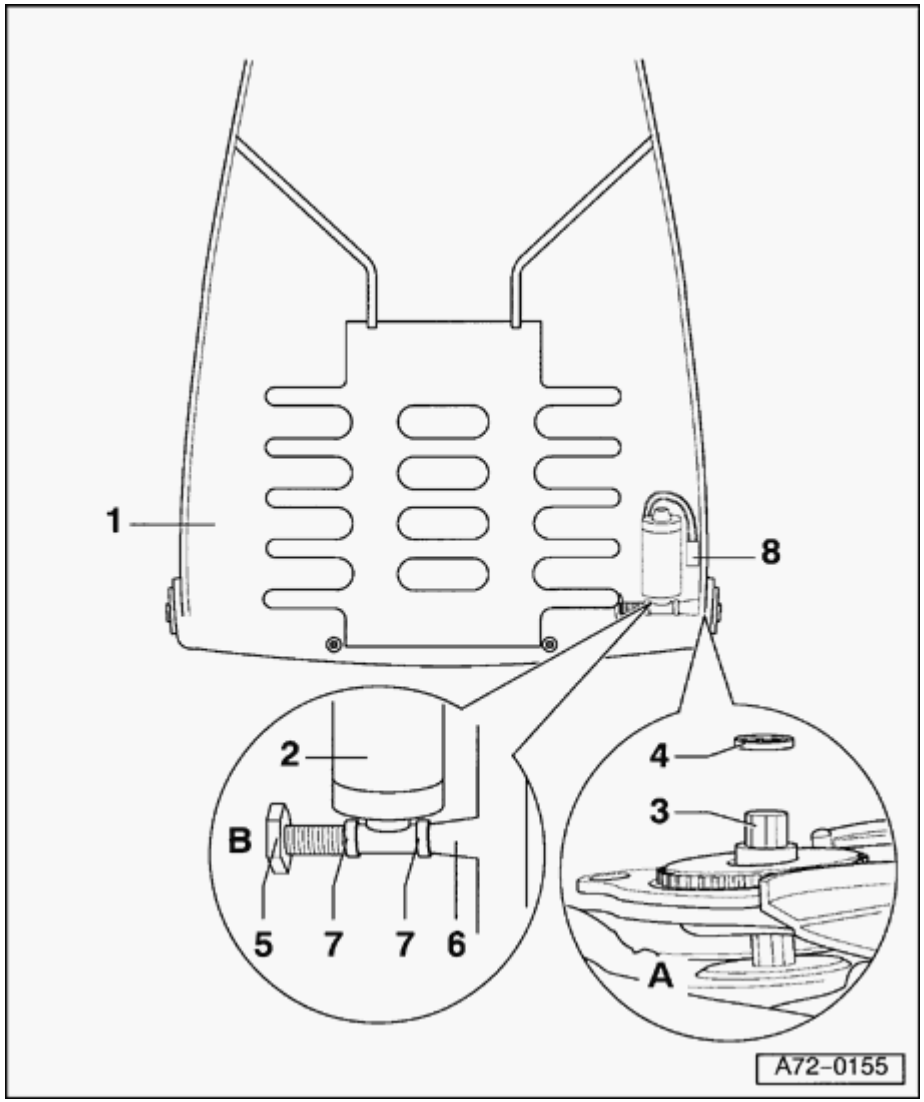
4 - Bolts (2x)

5 - Tie wraps

6 - Bowden cable

7 - Set pin

72-48



Backrest motor with transmission, removing and installing

WARNING!

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

Note:

Illustration only shows backrest.

1 - Backrest frame

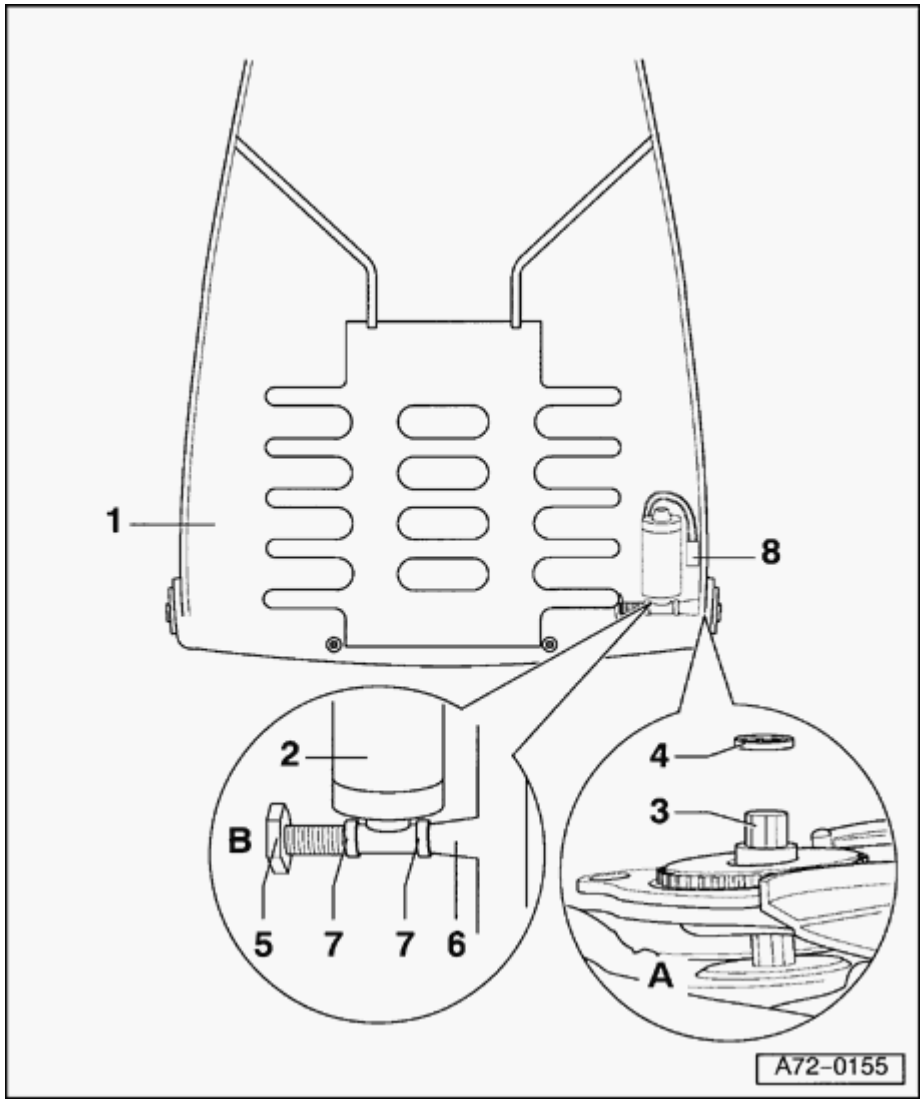
2 - Backrest motor with transmission

Removing:

- Move seat fully up.
- Remove seat ⇒ page 72-25 .
- Remove trim panels ⇒ page 72-41 .
- Remove backrest upholstery ⇒ page 74-22 .
- Using screwdriver, remove spring washer -5- on backrest motor side (-B- in illustration).
- Pull shaft out of backrest frame -1- far enough so backrest motor -2- can be removed.
- Cut all tie wraps on backrest motor using

diagonal cutter.

72-49



- Disconnect harness connector -8-.
- Unbolt mounting screw of backrest motor -5- from welded threaded bushing -6-.
- Remove backrest motor -2-.

Installing:

- Push shaft -3- through backrest motor -2- and backrest frame -1-.
- Secure backrest motor -2- between two plastic washers -7- using mounting screw -5- on threaded bushing -6-.
- Tap locking washer -4- onto shaft -3-.

3 - Shaft

4 - Locking washer

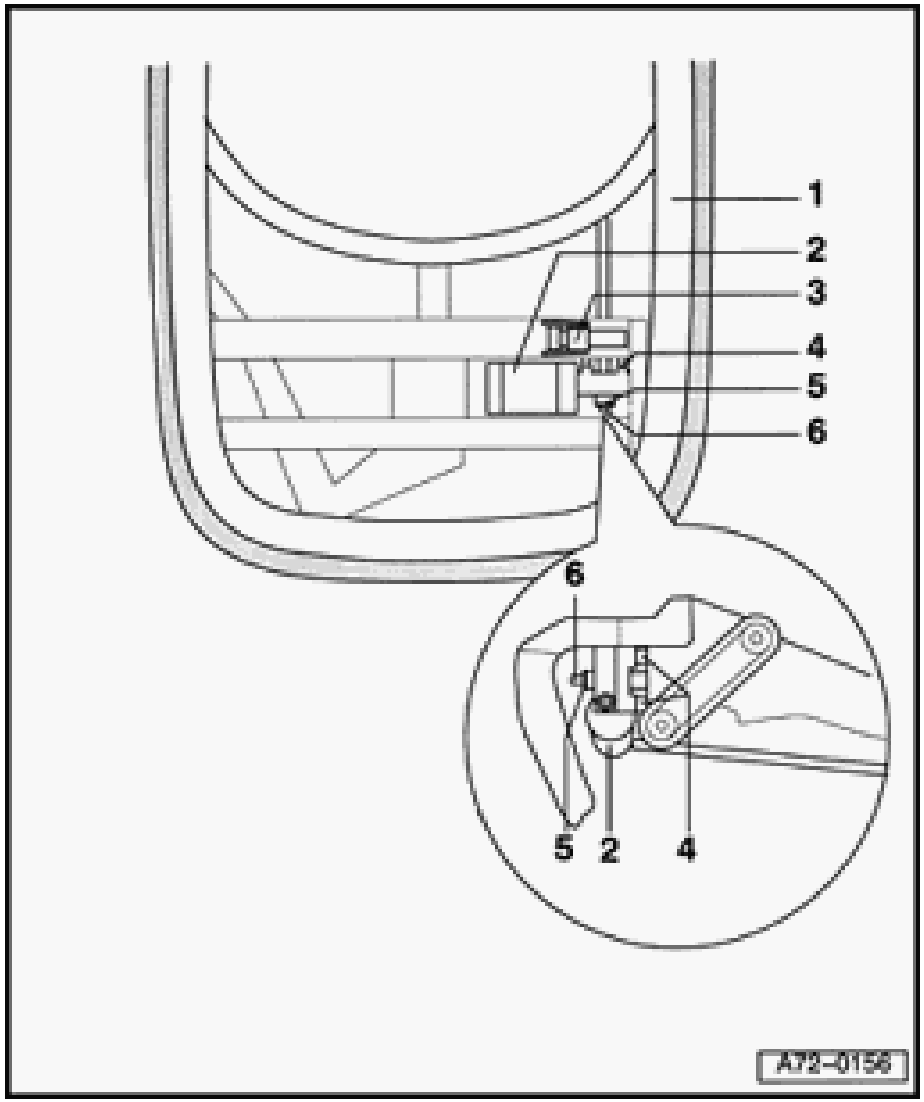
5 - Mounting screw

6 - Threaded bushing

7 - Plastic washers (2x)

8 - Harness connector

72-50



Motor for seat height adjustment, removing and installing

WARNING!

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

1 - Seat frame

2 - Seat height motor adjustment

Removing:

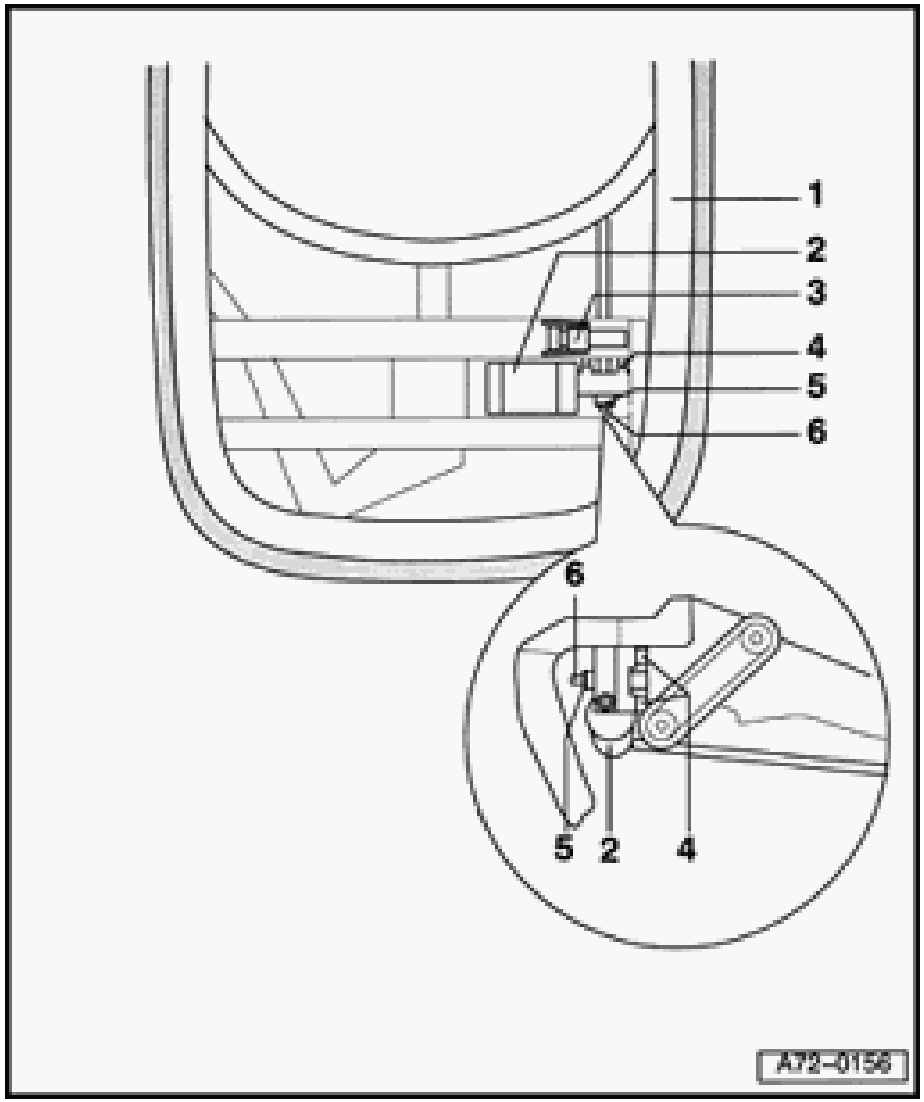
- Move seat fully up.
- Remove seat ⇒ page 72-25 .
- Remove seat cushion ⇒ page 72-32 .
- Disconnect harness connector -3-.
- Disconnect harness connector -3- housing from seat frame.
- Using screwdriver, lift locking washer -5- from shaft -6-.
- Remove motor -2-.

Installing:

Note:

Ensure that bushings -4- are correctly seated in the seat frame.

72-51



3 - Harness connector for motor

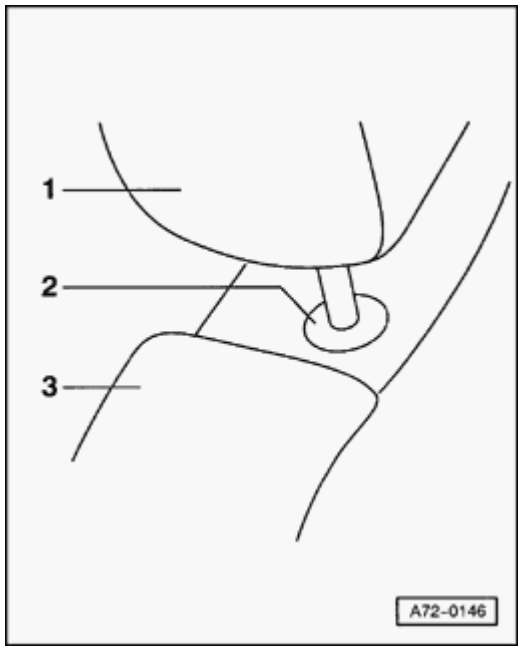
4 - Bushings (2x)

5 - Locking washer

6 - Shaft

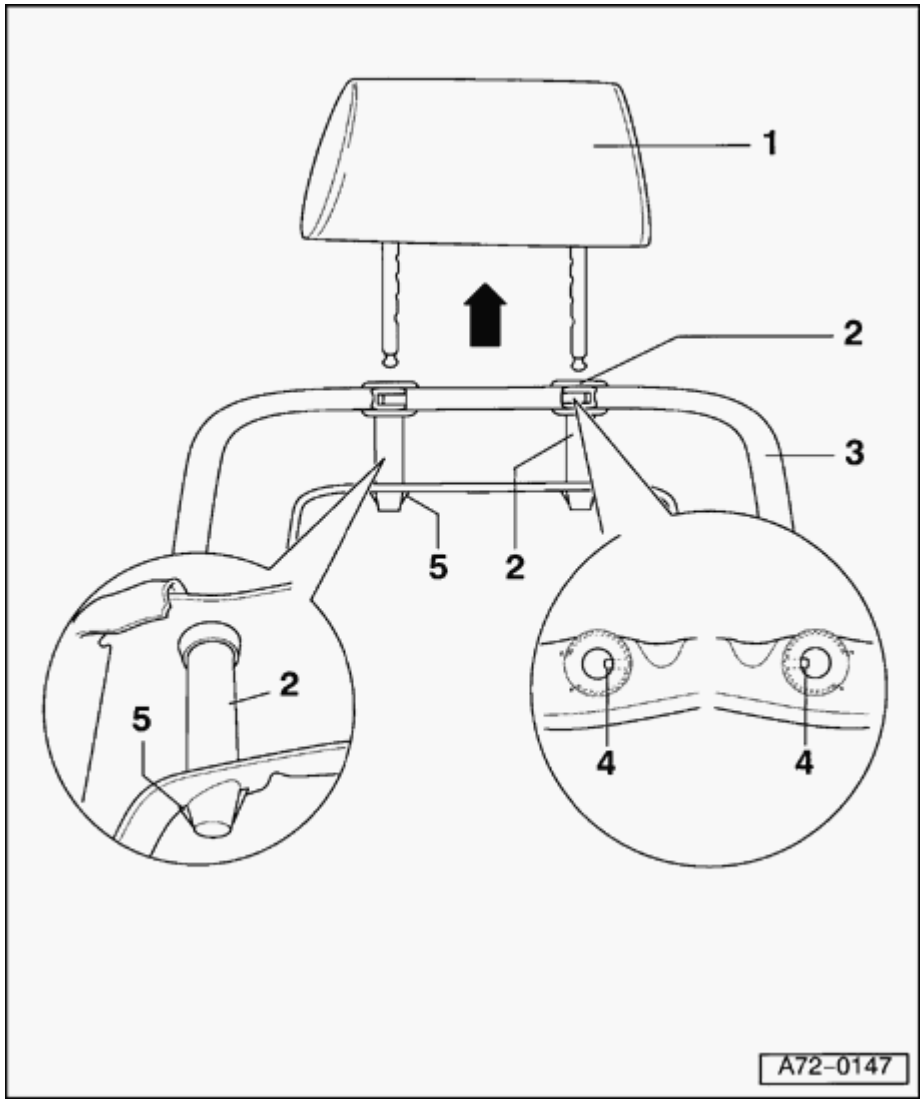
72-52

Headrest, removing and installing



- Press down on guide sleeves -2- from above.
- Press down slightly on headrest -1- to release catch.
- Pull headrest -1- up and off of backrest -3-.

72-53



Headrest guides, removing and installing

WARNING!

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

1 - Headrest

2 - Headrest guide

Removing:

- Remove headrest -1- ⇒ page 72-52 .
- Remove upholstery from backrest frame - 3- ⇒ page 74-22 .
- Press catches -5- of headrest guide -2- together and pull headrest guide -2- up and off.

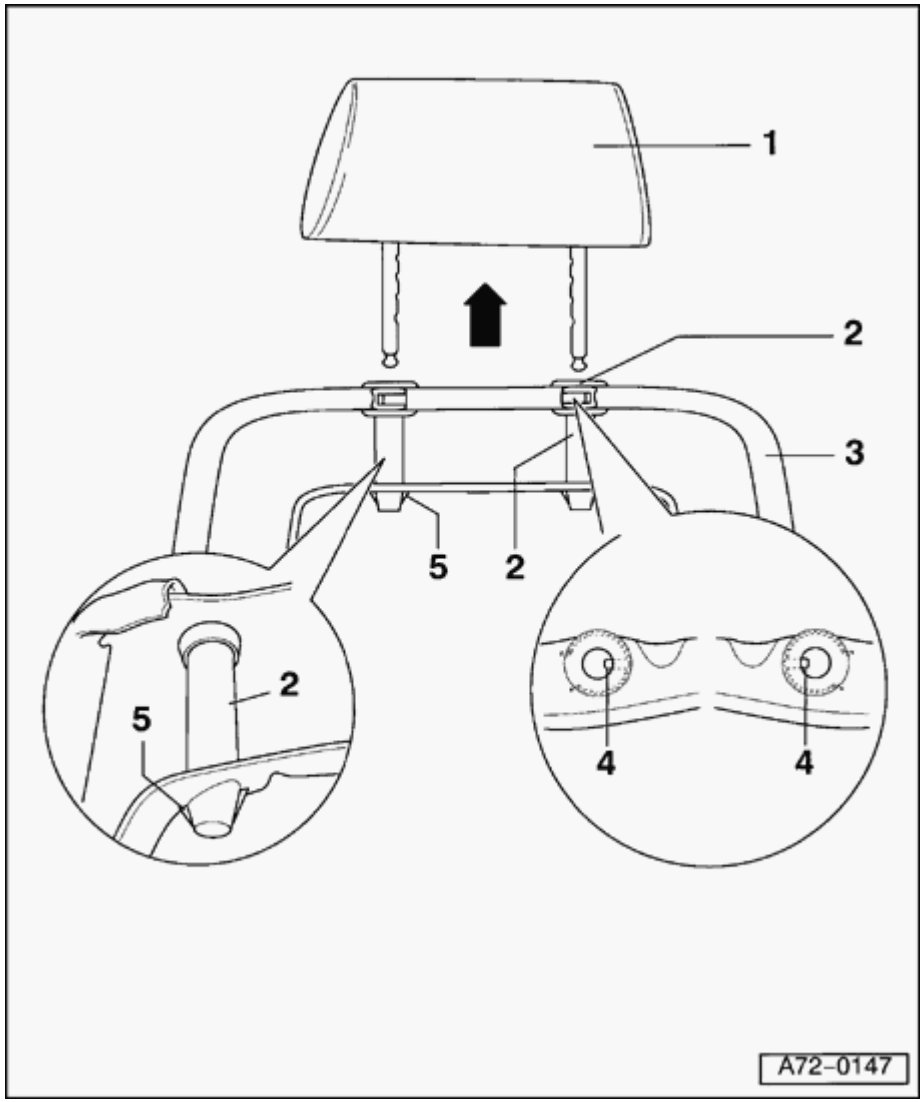
Installing:

CAUTION!

The locking pins for both headrest guides must be on the inside so that they engage in the height adjustment catches.

- Install headrest guides -2- so locking pins -4- of headrest guides are both on inside.

72-54

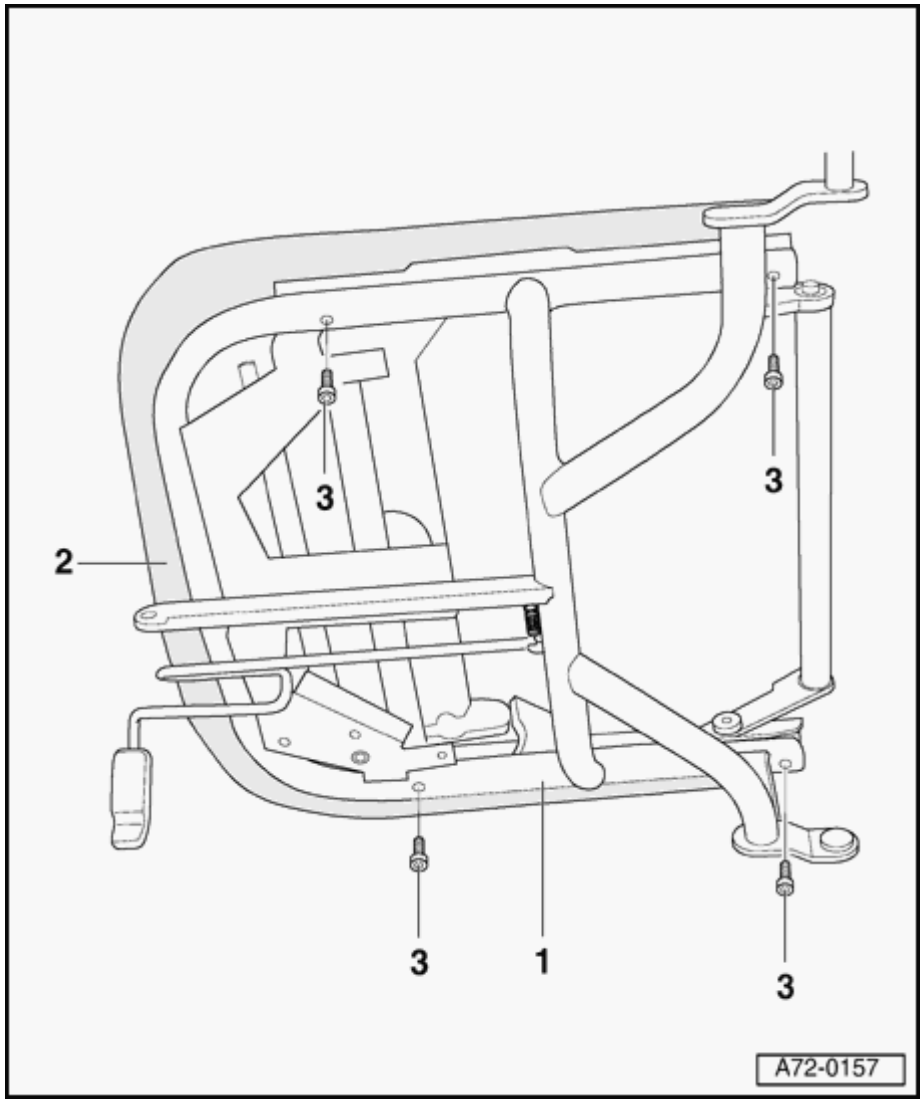


3 - Backrest frame

4 - Locking pins

5 - Catches

72-55



Seat frame, removing and installing

WARNING!

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

1 - Seat frame

Removing:

- Remove seat ⇒ page 72-25 .
- Place seat so underside of seat cushion is easily accessible.
- Disconnect tie wraps that are attached to seat frame.
- Unbolt bracket for harness connecter (two bolts).
- Unbolt both relays (2x).
- Unbolt bolts -3- (4x) on seat frame -1-.
- Remove seat frame -1- from seat -2-.

Installing:

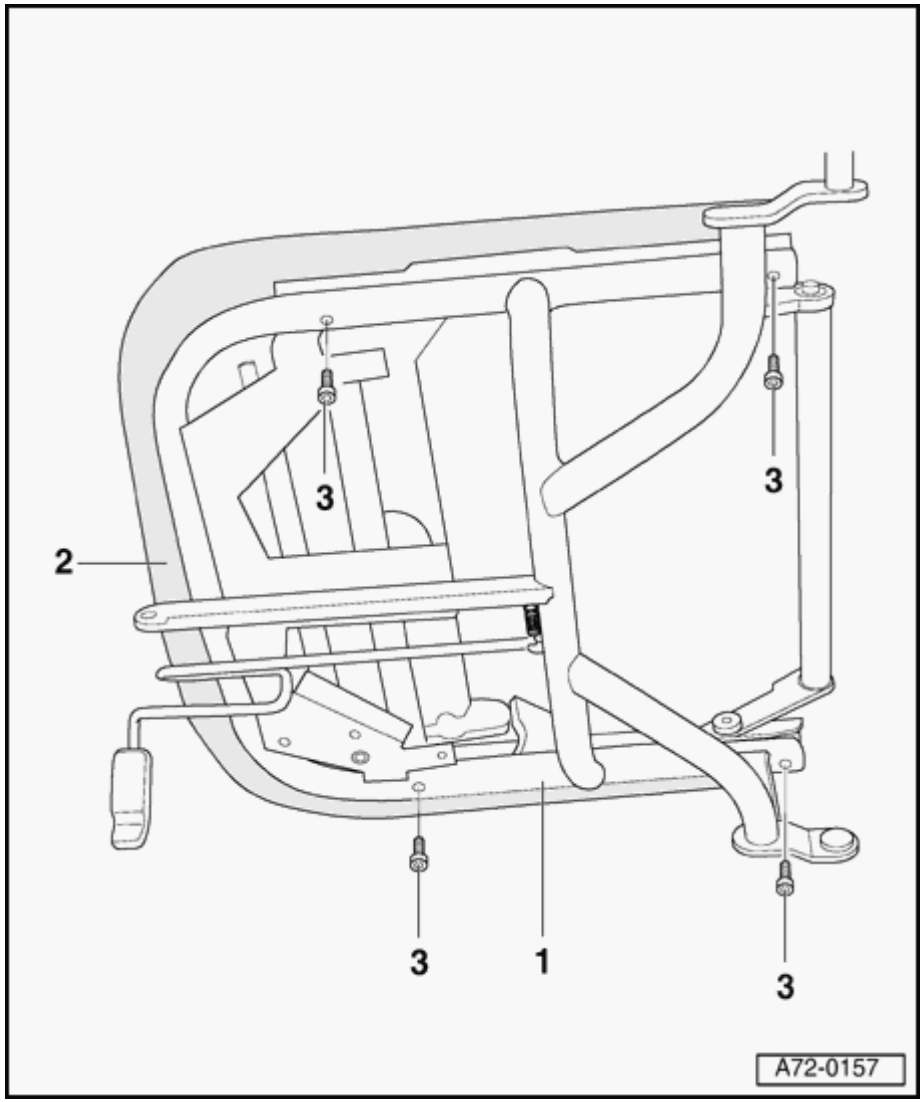
Note:

Always replace bolts -3-.

- Place new seat frame -1- on seat -2-.

- Tighten bolts -3- (4x) to 23 Nm (17 ft lb).

72-56



2 - Seat

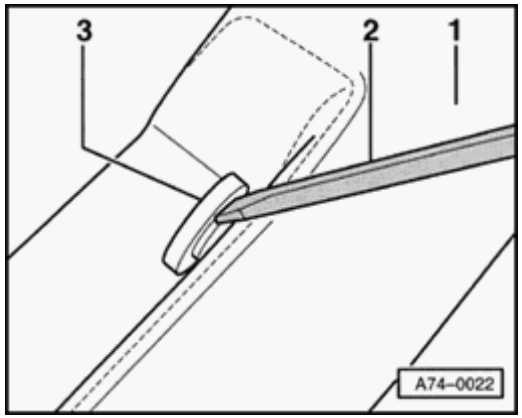
3 - Bolts (4x)

- 23 Nm (17 ft lb)

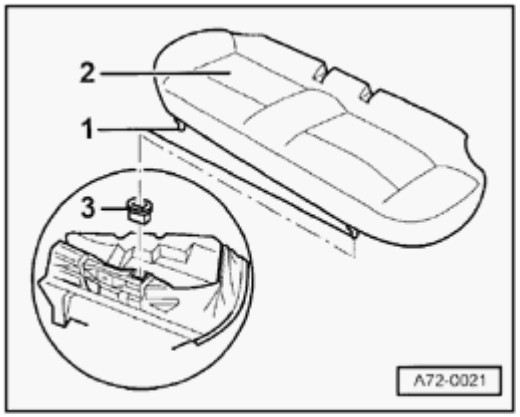
72-57

Rear seat

Rear seat, removing and installing

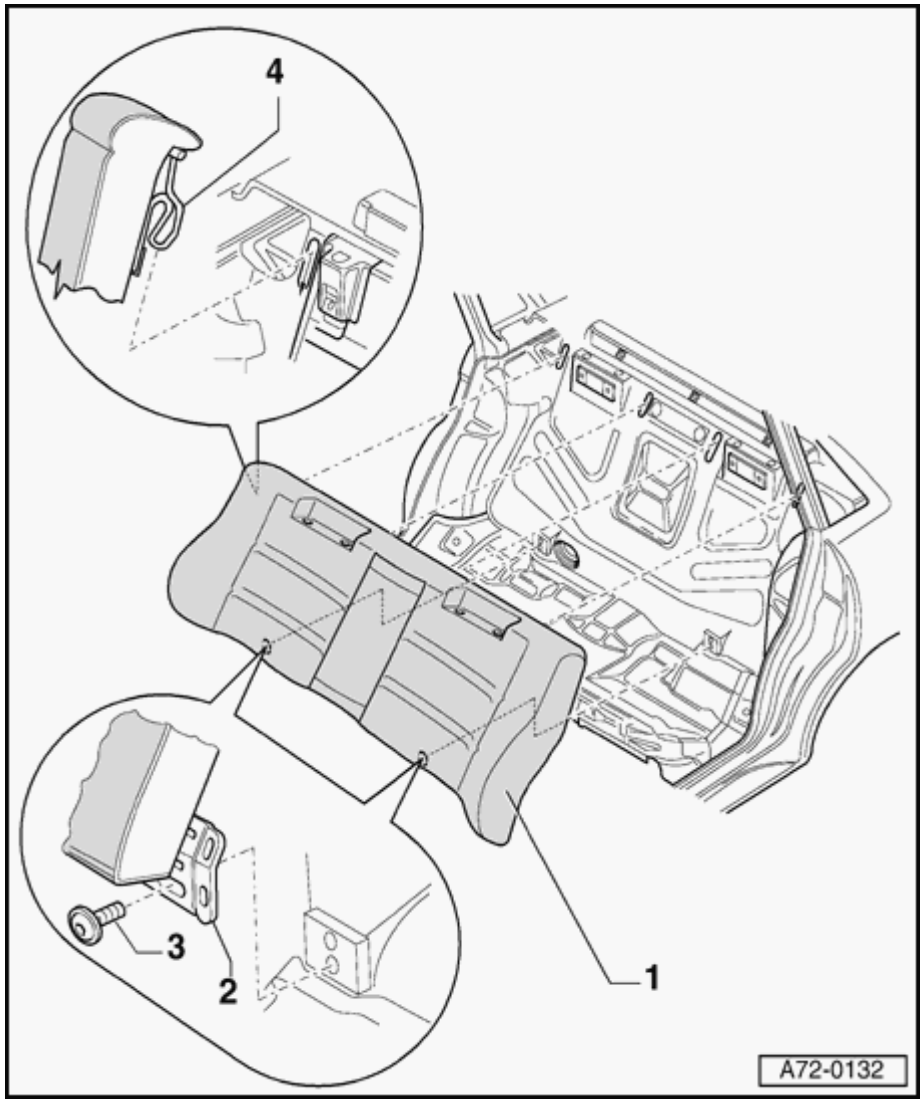


- Using screwdriver -2-, carefully lift headrest guides -3- out of rear backrest -1-.



- Detach rear seat -2- upward out of mounting -3-.
- To install, brackets -2- must be pushed into mountings -3-.

72-58



One-piece rear seat backrest, removing and installing

1 - One-piece backrest

- Remove rear seat ⇒ page 72-57 .
- Remove headrests ⇒ page 72-70 .
- For vehicle with ski sack, remove ski sack frame ⇒ page 74-31 .
- Remove headrest guides ⇒ page 72-67 .
- Remove bolts -3- (2x).
- Push rear backrest -1- up and detach rear backrest -1- from brackets -4- (4x).

Vehicles with LATCH System:

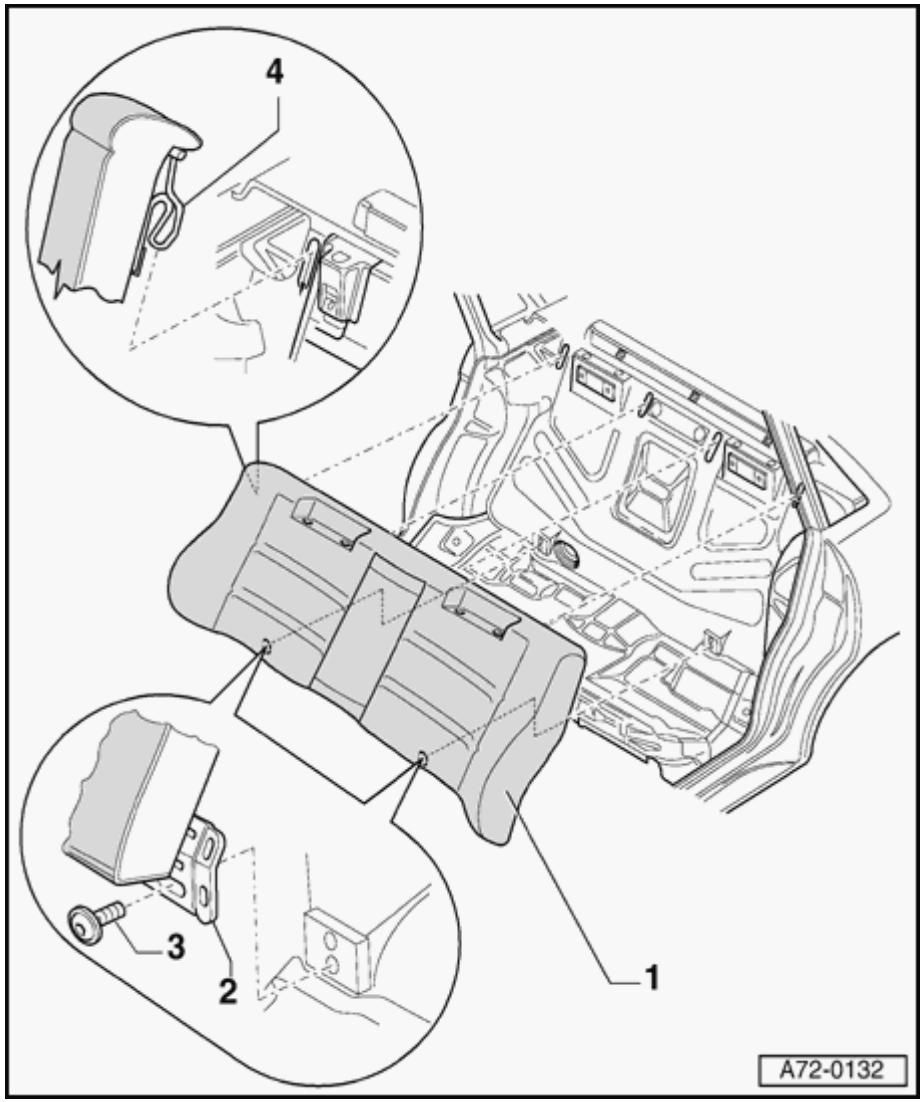
- Remove tabs -2- behind LATCH bracket.

Notes:

- *To install rear backrest, push tab -2- behind LATCH bracket.*
- *If LATCH is retrofitted, it may be necessary to flatten tab -2- in vise down to about 3 mm.*

2 - Tab

72-59

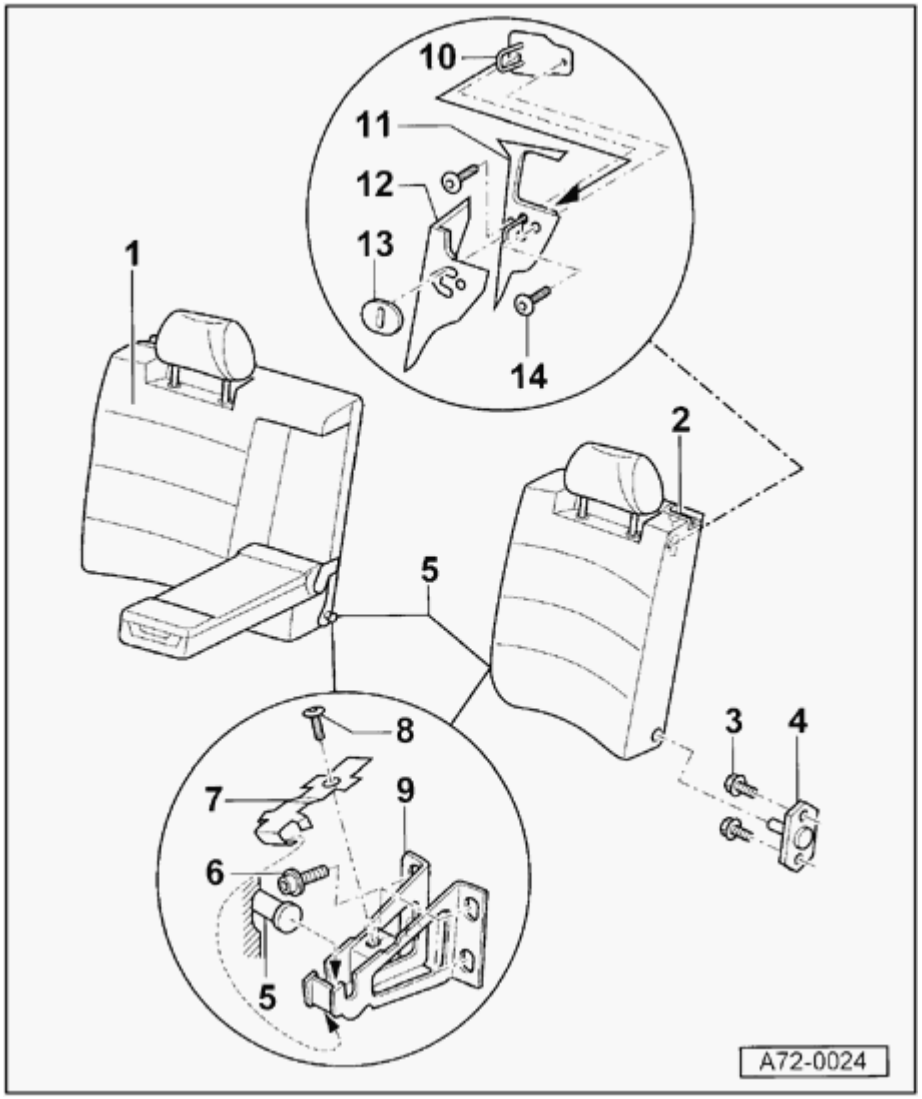


3 - Bolts (2x)

- 8 Nm (71 in. lb)

4 - Hooks (4x)

72-60



Split rear seat backrest (Sedan), removing and installing

1 - 2/3 rear backrest

Removing:

- Remove bolt -8- and remove center mounting bracket clip -7-.
- Lift rear backrest out of center mounting bracket -9- and pull toward center of car out of fitting -4-.

Installing:

- Installation is the reverse of removal

2 - 1/3 rear backrest

- Removal and installation procedures are same as 2/3 rear backrest

3 - Bolts (2x)

- 16 Nm (12 ft lb)

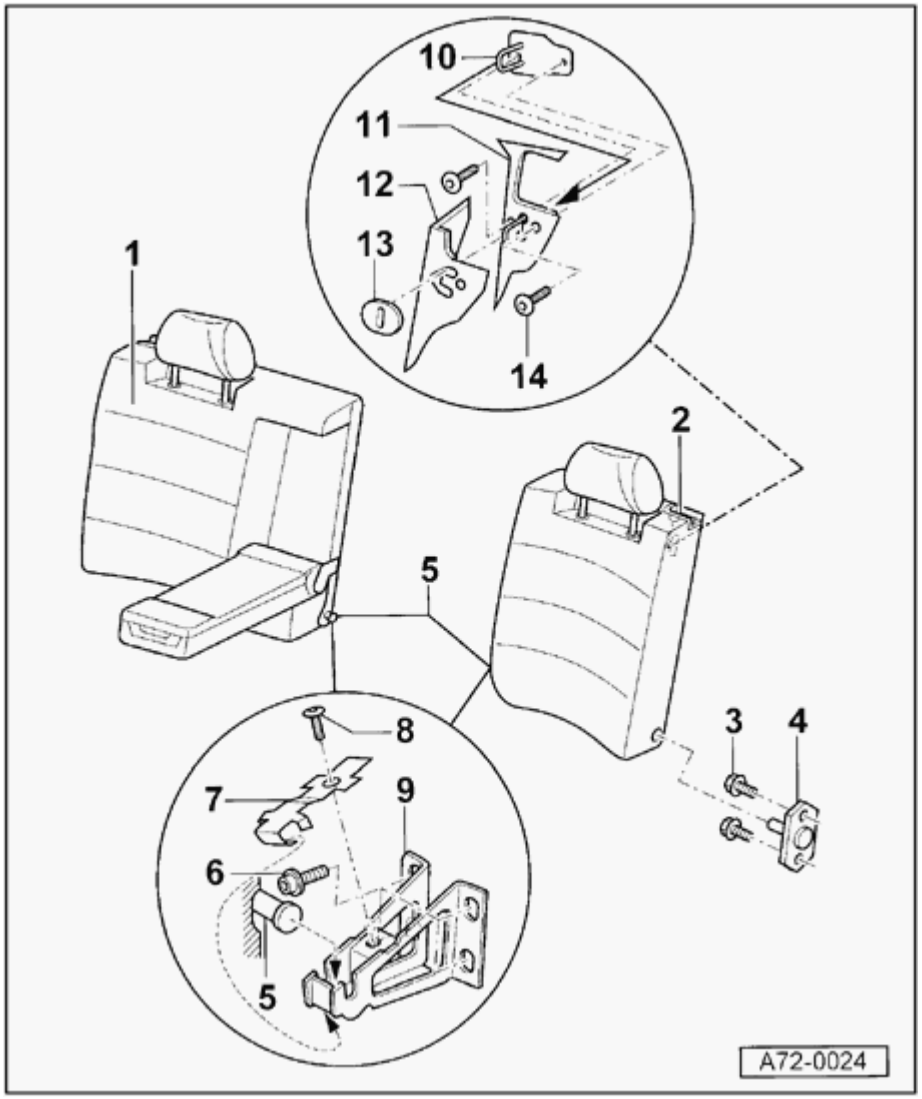
4 - Fitting

5 - Guide for rear backrest

6 - Bolt (4x)

- 16 Nm (12 ft lb)

72-61



7 - Center mounting bracket clip

8 - Bolt

- 8 Nm (71 in. lb)

9 - Center mounting bracket

10 - Locking stirrup

11 - Rear panel

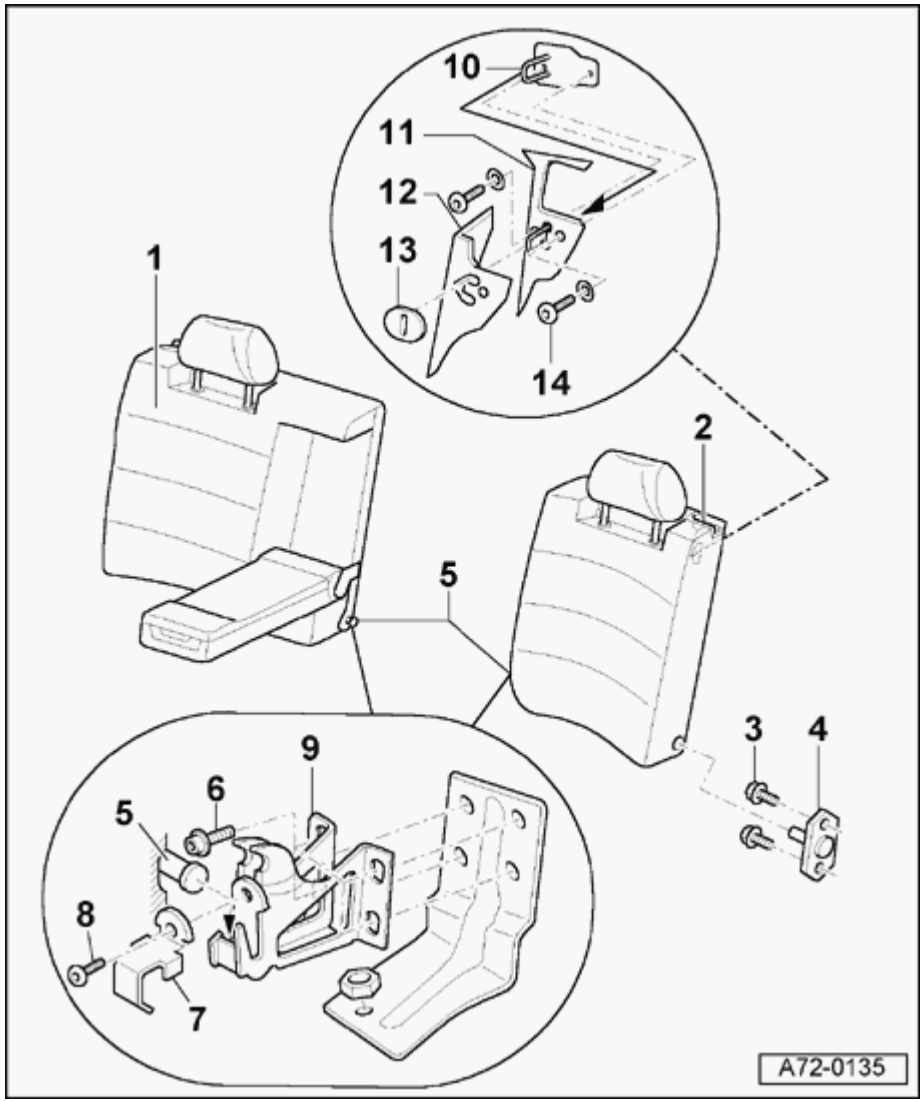
12 - Trunk trim

13 - Base plate

14 - Bolt

- 8 Nm (71 in. lb)

72-62



Split rear backrest (Avant ➢m.y. 1998), removing and installing

1 - 2/3 rear backrest

Removing:

- Remove bolt -8- and remove center mounting bracket clip -7-.
- Lift rear backrest out of center mounting bracket -9- and pull toward center of car out of fitting -4-.

Installing:

- Installation is the reverse of removal

2 - 1/3 rear backrest

- Removal and installation procedures are same as 2/3 rear backrest

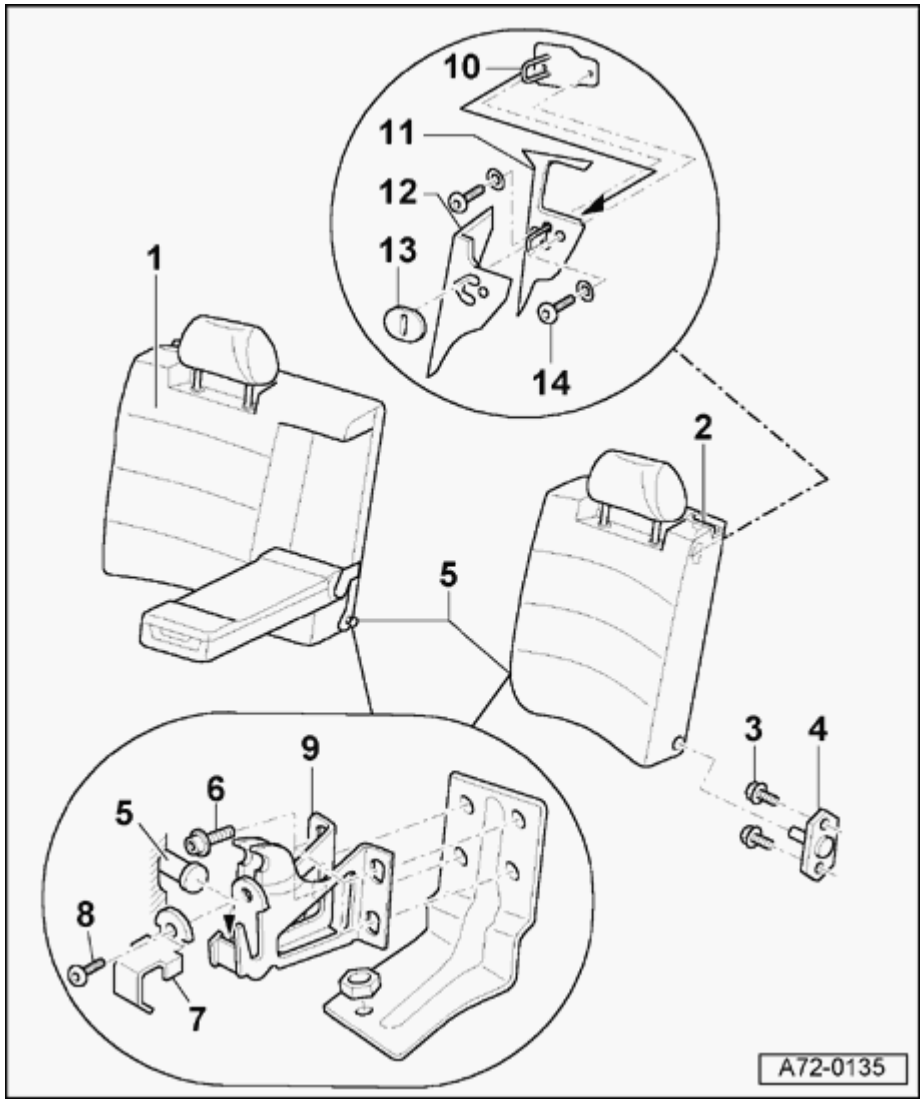
3 - Bolts (2x)

- 16 Nm (12 ft lb)

4 - Fitting

5 - Guide for rear backrest

72-63



6 - Bolt (4x)

- 16 Nm (12 ft lb)

7 - Center mounting bracket clip

8 - Bolt

- 8 Nm (71 in. lb)

9 - Center mounting bracket

10 - Locking stirrup

11 - Rear panel

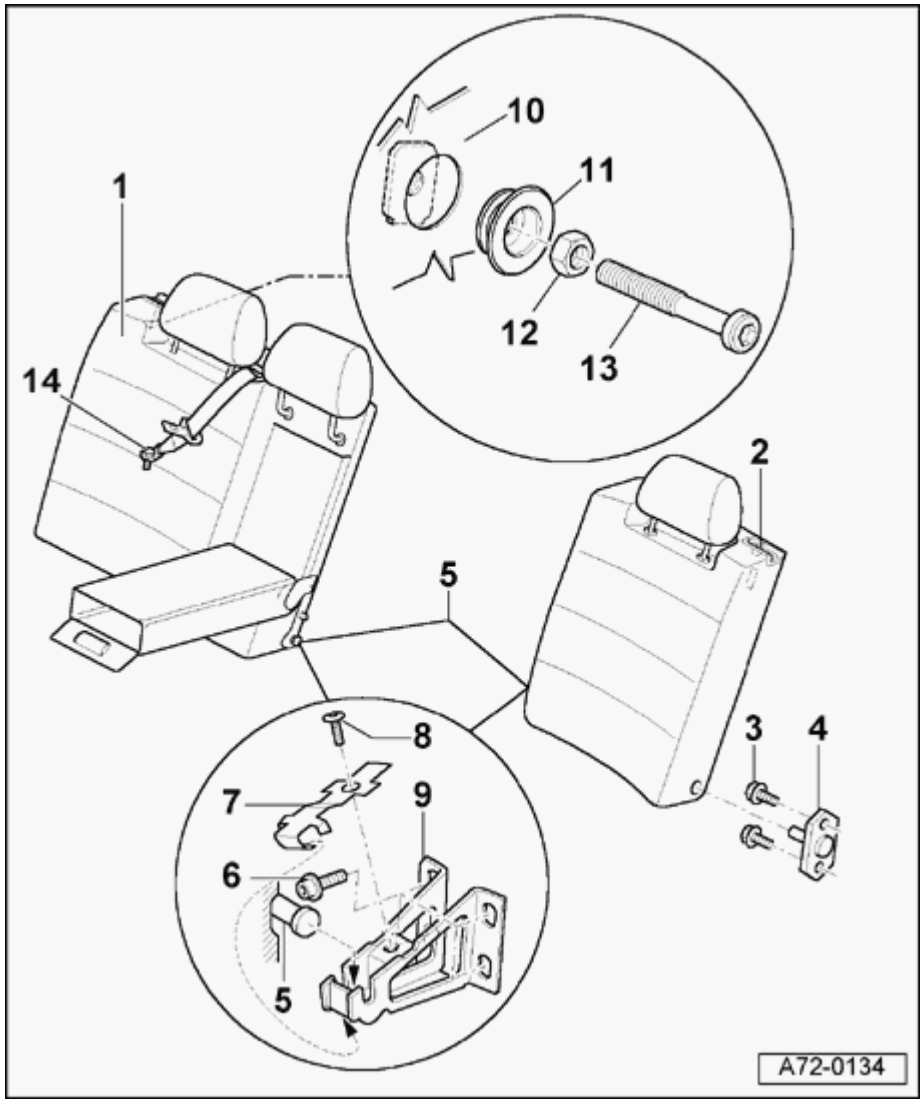
12 - Trunk trim

13 - Base plate

14 - Bolt

- 8 Nm (71 in. lb)

72-64



Split rear backrest (Avant m.y. 1998 ➢), removing and installing

1 - 2/3 rear backrest

Removing:

- Remove rear seat ⇒ page 72-57 .
- Disconnect harness connector to belt tensioner ⇒ Fig. 2 .
- Remove bolt -14-.
- Remove bolt -8- and remove center mounting bracket clip -7-.
- Lift rear backrest out of center mounting bracket -9- and pull toward center of car out of fitting -4-.

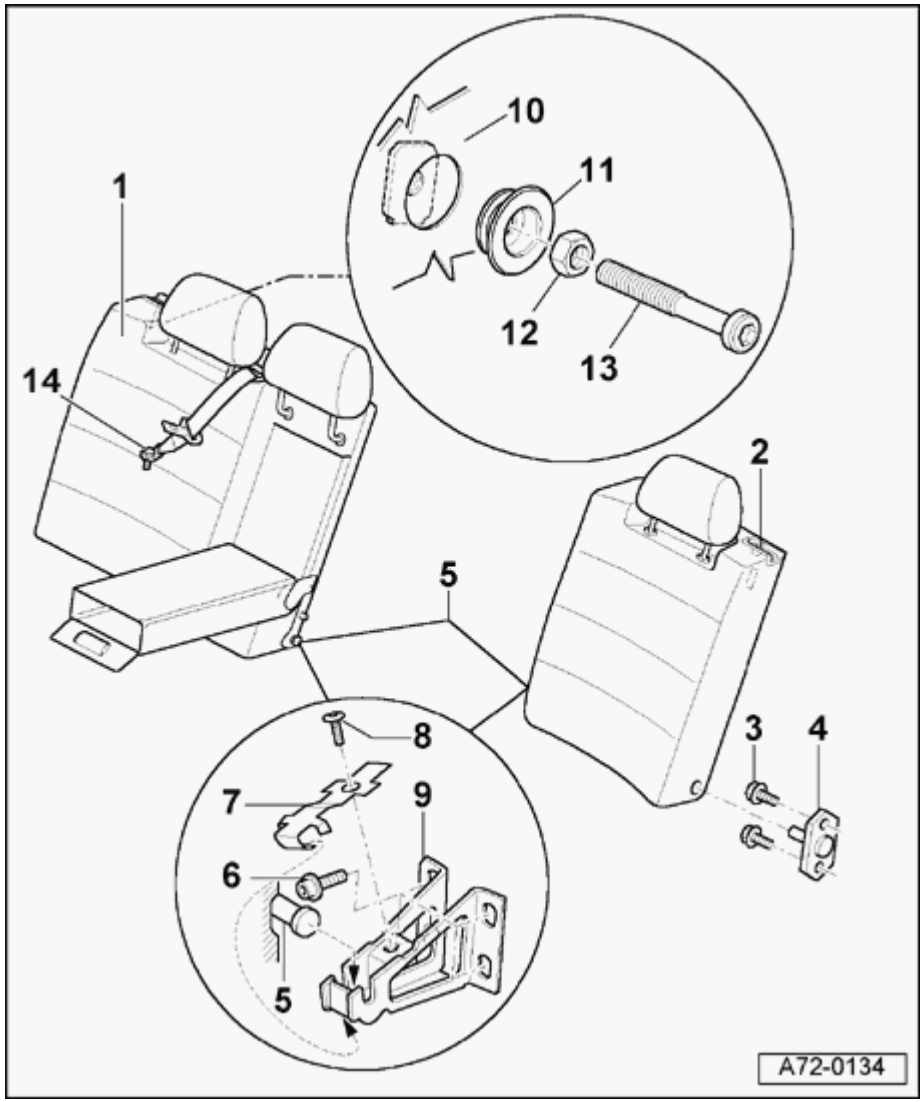
Installing:

♦ Installation is the reverse of removal

2 - 1/3 rear backrest

- Remove bolt -8- and remove center mounting bracket clip -7-.
- Lift rear backrest out of center mounting bracket -9- and pull toward center of car out of fitting -4-.

72-65



3 - Bolts (2x)

- ♦ 16 Nm (12 ft lb)

4 - Fitting

5 - Guide for rear backrest

6 - Bolt (4x)

- ♦ 16 Nm (12 ft lb)

7 - Center mounting bracket clip

8 - Bolt

- ♦ 8 Nm (71 in. lb)

9 - Center mounting bracket

10 - Side trunk trim

11 - Spring washer

12 - Nut

- ♦ 55 Nm (41 ft lb)

13 - Latch bolt

- Install latch bolt hand tight and adjust after backrest is installed.

14 - Bolt (1x)

- ♦ 55 Nm (41 ft lb)

72-66

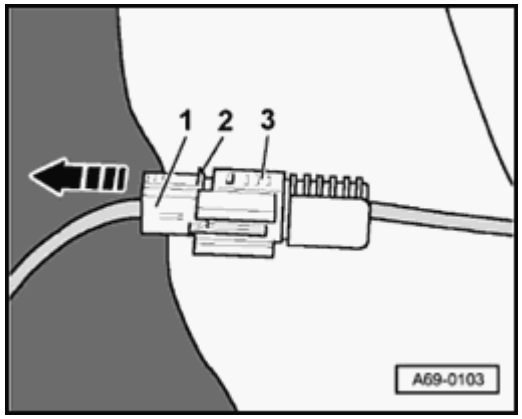
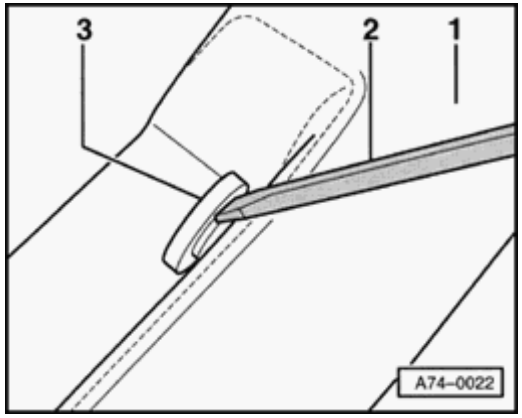


Fig. 2 Disconnecting harness connector for belt tensioner

- Press catches -2- and disconnect harness connector -1- in direction of arrow.

72-67

Headrest guide (one-piece rear backrest), removing and installing



- Using screwdriver -2-, carefully lift headrest guide -3- out of rear backrest -1-.

Note:

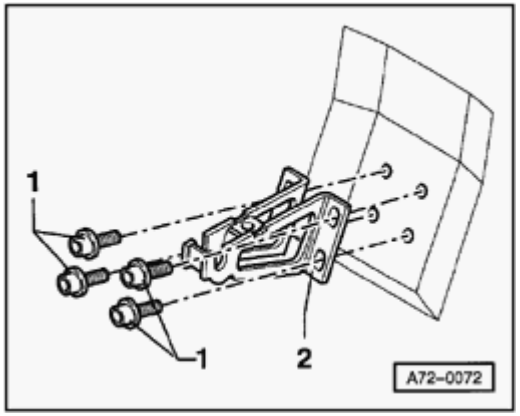
Do not damage seat cover when removing headrest guide.

72-68

Center mounting bracket (Sedan and Avant m.y. 1998 ➢), removing and installing

- Remove left and right-rear backrests (Sedan) ⇒ page 72-60 .

- Remove left and right-rear backrests (Avant) ⇒ page 72-64 .



➢

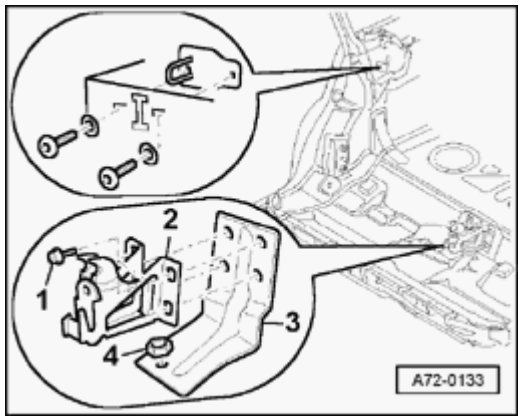
- Remove bolts -1- (4x) from center mounting bracket -2-.

  Tightening torque: 16 Nm (12 ft lb)

72-69

Center mounting bracket (Avant ➢ m.y. 1998), removing and installing

- Remove left and right-rear backrests ⇒ page 72-62 .



➢

- Remove bolts -1- (4x) from center mounting bracket -2-.

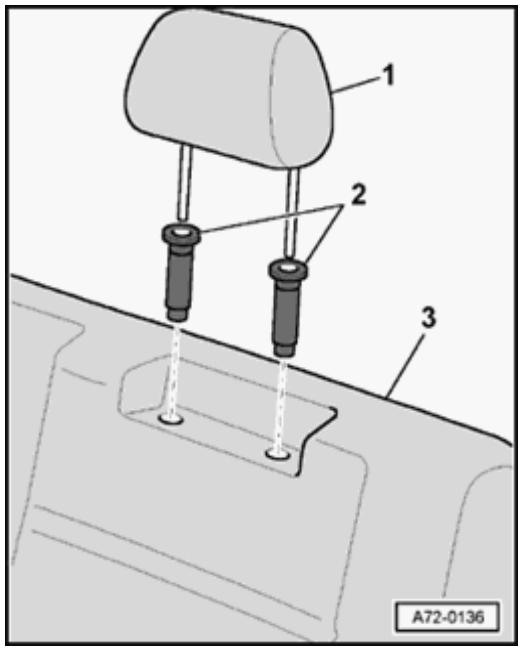
  Tightening torque: 16 Nm (12 ft lb)

- Center mounting bracket support -3- (only for vehicles with front wheel drive).
- Remove nut -4-.

  Tightening torque: 5 Nm (44 in. lb)

72-70

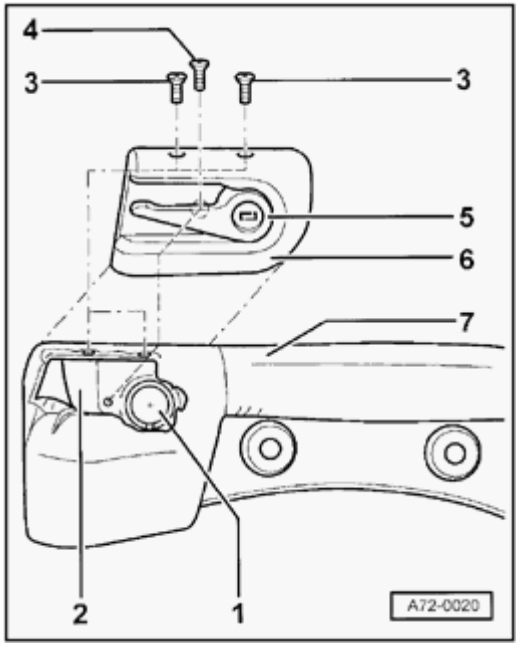
Headrest, removing and installing



- Press button on left headrest guide -2-.
- Pull headrest -1- up and off of rear backrest -3-.

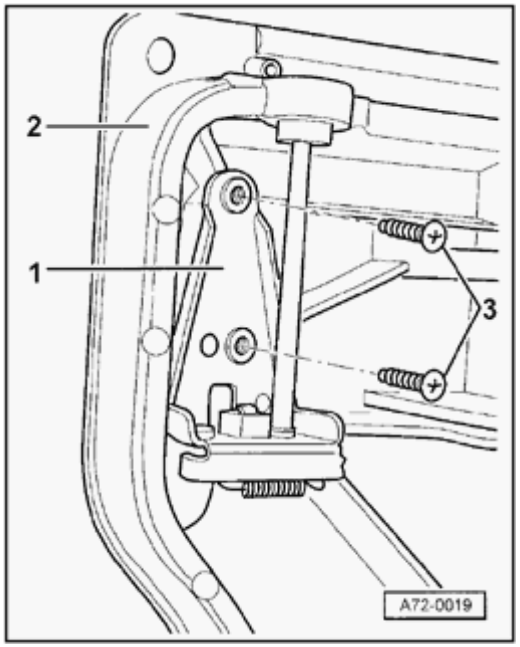
72-71

Lock for split rear backrest (Sedan and Avant > m.y. 1998), removing and installing



- Remove screws -3- (2x).
- Push release lever -5- back and remove bolt -4-.
- Remove lock -6- from rear backrest -2-.
- When installing lock -6-, release lever -5- has to engage in groove for release -1-.

72-72



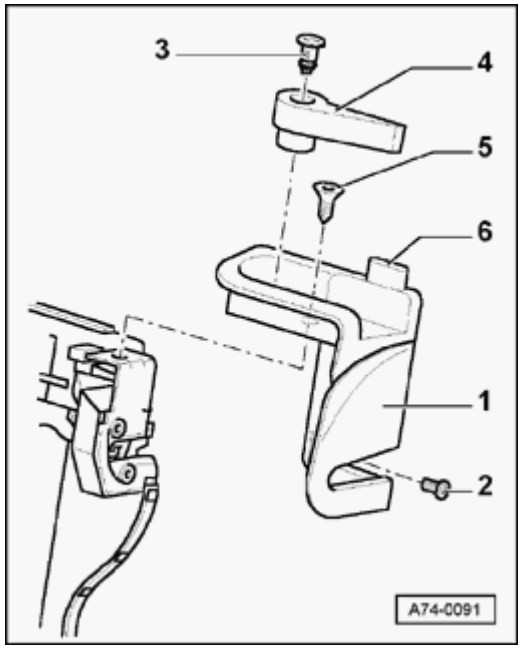
- Remove rear backrest upholstery in area near lock.

- Remove screws -3- (2x).
- Remove release -1- downward out of rear backrest.

72-73

Lock for split rear backrest (Avant m.y. 1998 ➢), removing

Removing lock trim



- Remove bolt -2-.

  Tightening torque: 1.5 Nm (13 in. lb)
- Remove bolt -5-.

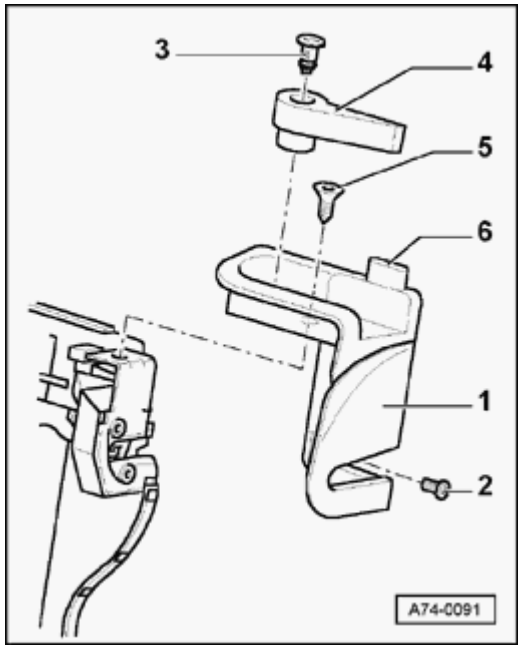
  Tightening torque: 5 Nm (44 in. lb)
- Pull lock trim -1- up and remove.

Removing lock lever

- Lock trim removed

- Detach lock lever -4- from below from catches (2x).
- Lift up lock lever -4- using screwdriver.

72-74



Removing locking cylinder

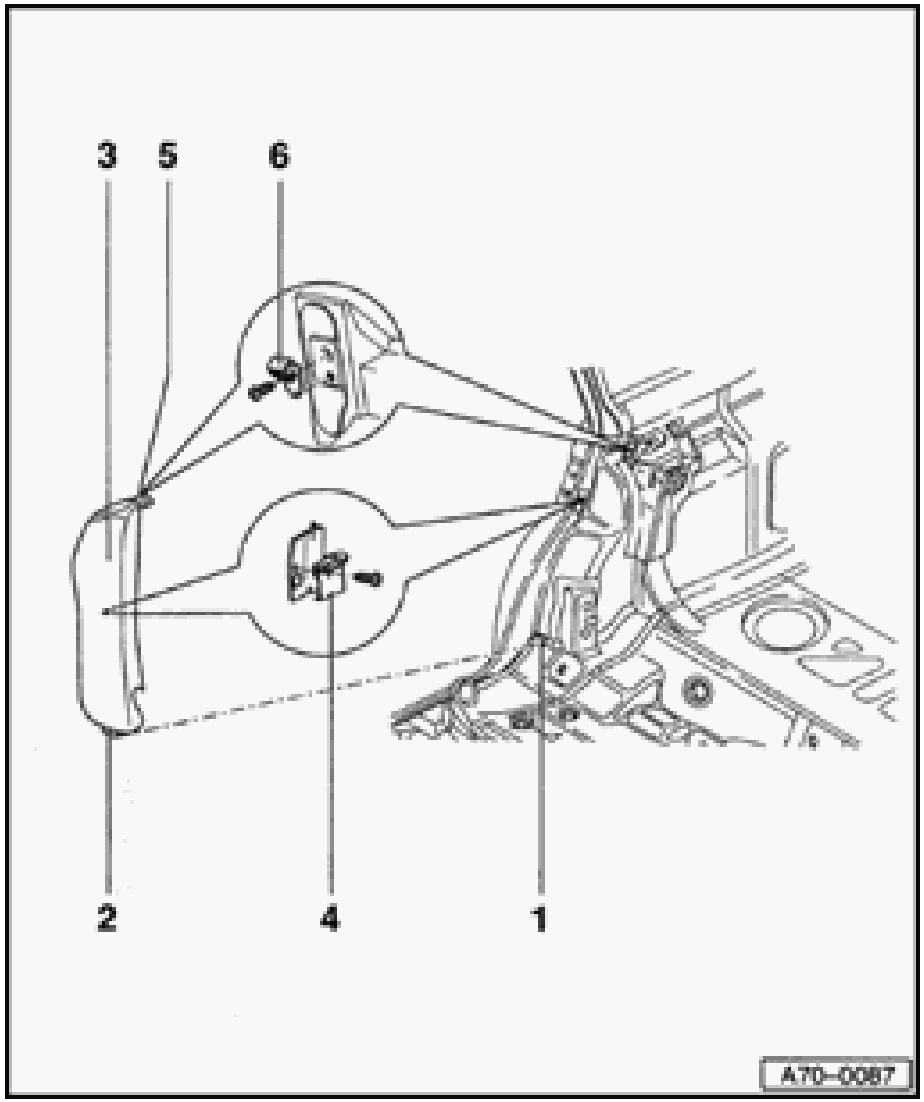
- Ignition key is required to remove and install locking cylinder -3-
- Locking lever -4- removed

- Using screwdriver, lift catches while simultaneously pressing out locking cylinder -3-.

Warning indicator

- When rear backrest is locked, pin -6- is 1-2 mm above lock trim.
- If rear backrest is not locked, pin -6- is approx. 20 mm above lock trim -1- and a red mark is visible.

72-75



Side bolster, removing and installing

1 - Metal tab

- Remove rear seat ⇒ page 72-57 .
- Push backrest forward.
- Bend metal tab open and detach bracket -2-.

2 - Bracket

3 - Side bolster

4 - Hook

- Detach side bolster from hook.

5 - Bracket

6 - Mounting

- Push upper part of side bolster toward rear and detach bracket from mounting in upward direction.

Note:

When installing the side bolster, ensure that bracket -5- engages in retaining clip -6-, and that bolster frame -3- engages in hook -4- on door flange.

VAG1551 Scan Tool (ST), connecting

Note:

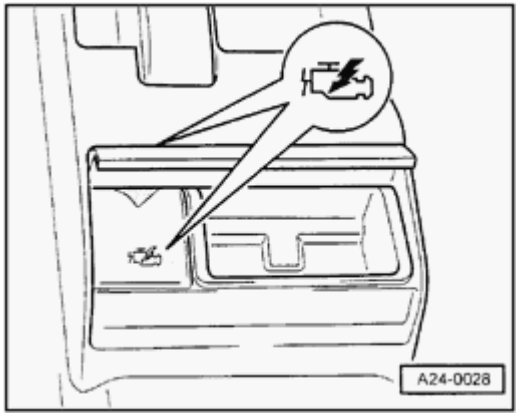
The VAG1552 mobile scan tool can be used instead of the VAG1551, but there is no print-out capability.

Requirements

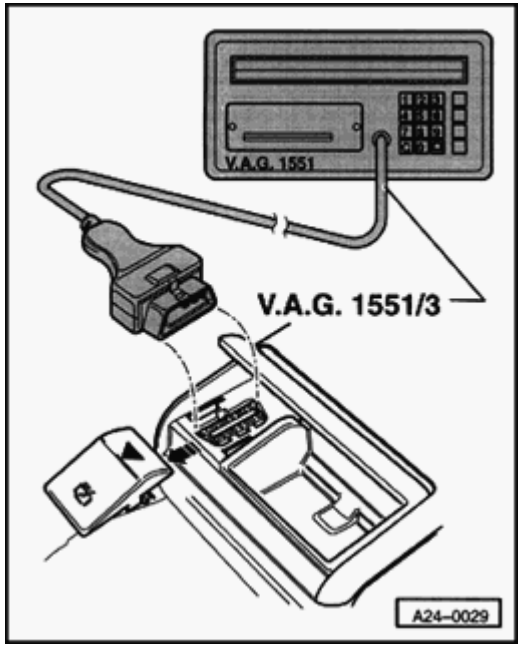
- Battery Positive Voltage (B+) OK (at least 11 Volts)
- Engine and transmission Ground (GND) connections OK
- Fuse OK

01-2

Vehicles 1996



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

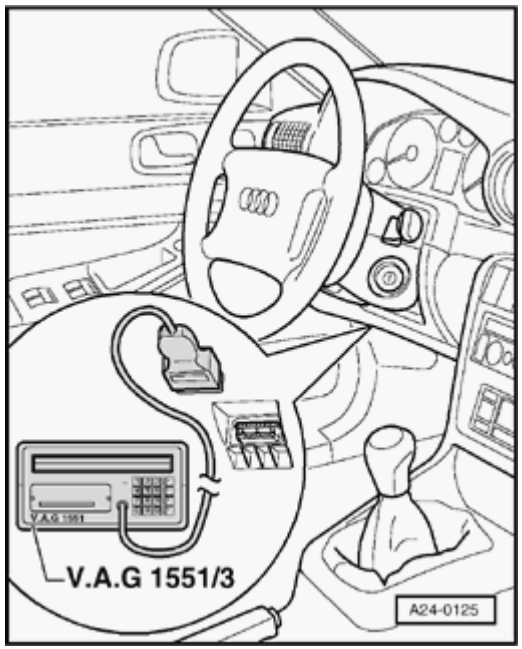


- Connect VAG1551 or VAG1552 Scan Tool (ST) with VAG1551/3 adapter to Data Link Connector (DLC).

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

01-4

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*

- 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 .

01-6

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!***

01-8

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.

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

01-10

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 ➢.

01-11

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.

01-12

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).

01-13

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.*

01-14

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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - Check spiral spring.

		- Replace driver-side airbag unit. - Replace airbag control module -J234-.

01-15

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 ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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 ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - Replace driver-side airbag unit - Replace airbag control module -J234-

01-16

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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - Replace passenger-side airbag unit. - Replace airbag control module -J234-.

01-17

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 ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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 ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - Replace passenger-side airbag unit - Replace airbag control module -J234-

01-18

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 ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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 ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder*
00591 Left Seat Belt Switch -E24 Short circuit to Ground	♦ Wiring damaged	- Check and repair wiring harness - Repair per wiring diagram ⇒ *Electrical Wiring Diagrams, Troubleshooting &*

		Component Locations binder

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 ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder*
00592 Right Seat Belt Switch - E25 Short circuit to Ground	♦ Wiring damaged	- Check and repair wiring harness - Repair per wiring diagram ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder*

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

01-21

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

Short circuit to B+		*Component Locations binder* - Replace airbag control module -J234-.

01-22

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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - Reconnect harness connector. - Replace right seat belt tensioner. - Replace airbag control module -J234-.

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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - Replace right seat belt tensioner.

		- Replace airbag control module -J234-.

01-24

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.

01-25

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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - Replace Malfunction Indicator Lamp -K75-. - Repair instrument cluster. - Replace airbag control module -J234-.

01-26

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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - Replace airbag control module -J234-.

01-27

Vehicles 1997 ➢ :

DTC **VAG 1551 scan tool display**	**Possible cause**	**Corrective action**
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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - Replace seat belt tensioner igniter -N196- - Replace airbag control module -J234-.

01-28

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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - Replace seat belt tensioner igniter -N196-.

		- Replace airbag control module -J234-.

01-29

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

		- Replace airbag control module -J234-.

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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - Replace seat belt tensioner igniter -N197-. - Replace airbag control module -J234-.

01-31

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

		- Replace airbag control module -J234-.

01-32

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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - Replace seat belt tensioner igniter -N198-. - Replace airbag control module -J234-.

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

		- Replace airbag control module -J234-.

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

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

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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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	⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - Reconnect harness connector. - Replace crash sensor -G179-. - Replace airbag control module -J234-.

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

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

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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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 ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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 ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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).

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

8A0959655D Airbag V AUDI D02 →
Coding 00766 WSC 06812

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

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

8D0959655C	Airbag 7	AUDI D00 →
Coding 00102		WSC 06812

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

01-43

Vehicles 1999 ➢: from VIN 8D XA 200 001

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

➢

- 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

01-44

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

01-46

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)

Rapid data transfer	**HELP**
Select function XX	

➢ Indicated on display

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

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

01-48

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.

01-49

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

01-51

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

All vehicles:

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

Indicated on display (e.g. 00102):

- Press -Q- button to confirm input.

8D0959655C Airbag 7 AUDI D00 →
Coding 00102 WSC 06812

- 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.

Rapid data transfer HELP
Select function XX

Indicated on display

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

  This ends the function.

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

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.

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.

01-71

Central Locking On Board Diagnostic (OBD), initiating

Requirements

- Power supply and fuses for relevant system OK

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

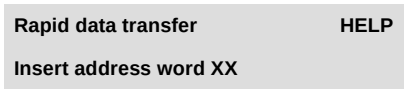
- VAG1551 Scan Tool (ST) connected ⇒ page 01-1

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.



➢ Indicated on display

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:

8L0862257B CL-Pump, DWA, Func D04 → **Coding 12172 WSC 06812**	After about 5 seconds, display indicates (for example):

Vehicles 1998 >:

8L0862257B CL-Pump, DWA, Func D04 → **Coding 16140 WSC 06812**	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 .

01-74

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).

01-76

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

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

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

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

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

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

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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - Replace side window as necessary ⇒ *Repair Manual, Body Exterior, Repair Group 64*
65535 Control Module Malfunctioning		- Replace control module.

Check Control Module Versions (scan tool function 01)

Rapid data transfer	HELP
Select function XX	

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

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

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 12172: coding ⇒ page 01-91
- WSC 06812: dealership number

- Press → button

01-86

Vehicles 1998 ⮞

8L0862257BCL-Pump, DWA, Func D04 →

Coding 16140 WSC 06812

⮜ 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

01-88

Output Diagnostic Test Mode (scan tool function 03)

Notes:

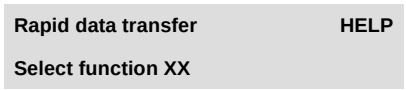
- *The Output Diagnostic Test Mode may only be performed with the vehicle stationary and the engine not running.*
- *Any malfunctions identified by the Output Diagnostic Test Mode must be checked and repaired.*

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

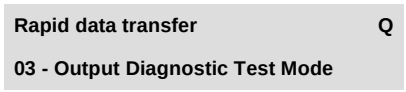
01-89

Carrying out "Output Diagnostic Test Mode" function 03



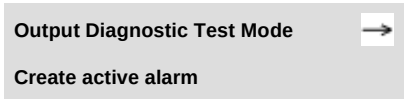
Indicated on display

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



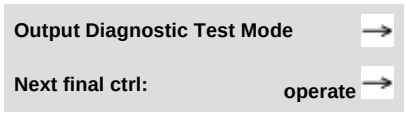
Indicated on display

- Press -Q- button to confirm input.



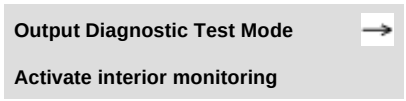
Indicated on display (emergency flasher and anti-theft horn are activated)

- Press → button.



Indicated on display

- Press → button.



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.

Output Diagnostic Test Mode →
Next final ctrl: operate →

⮜ Indicated on display

- Press → button.

Output Diagnostic Test Mode →
Simulate crash signal

⮜ 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 .*

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

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

01-92

- 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

01-93

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.*

01-96

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.*

01-98

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.*

01-99

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

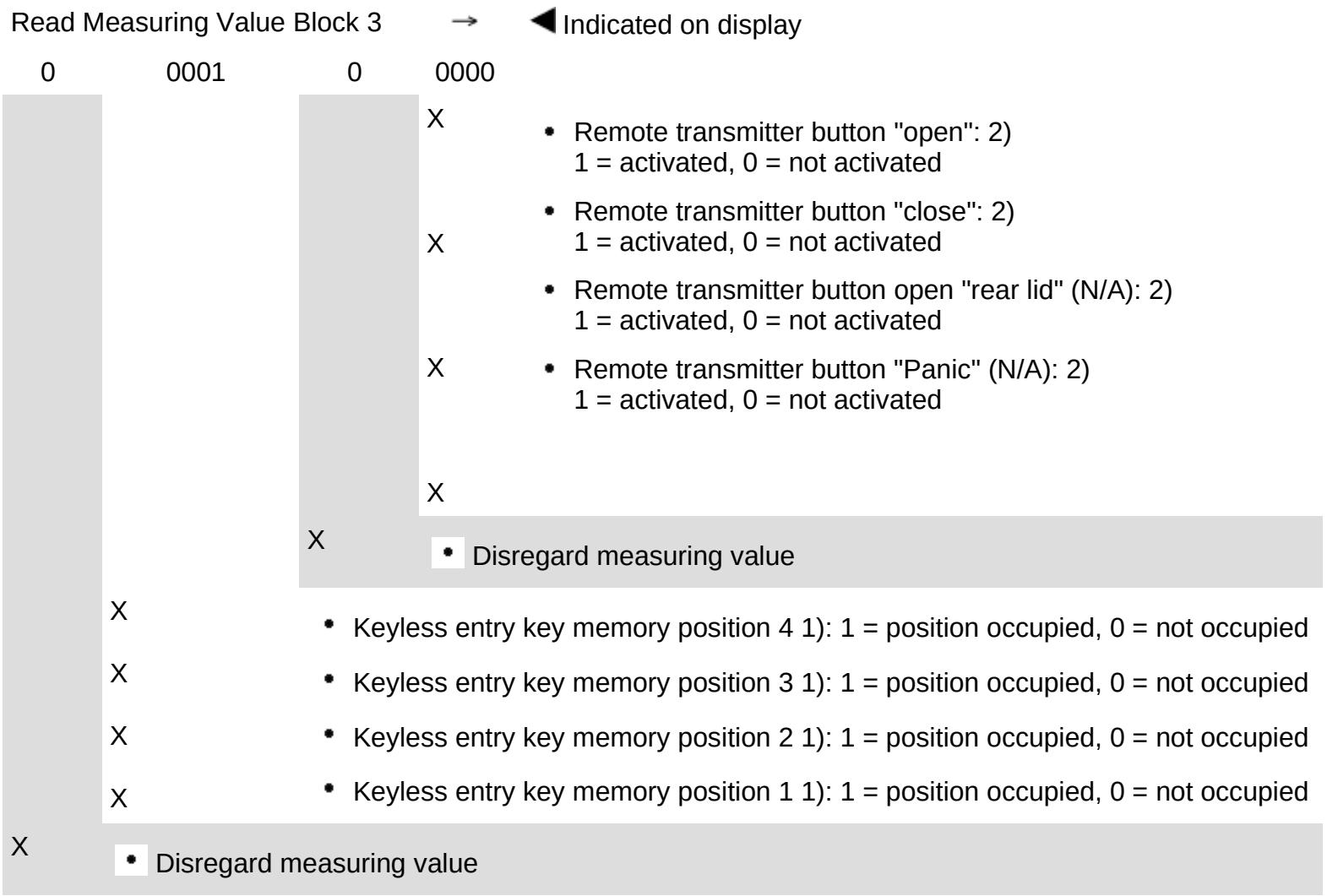
01-101

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			

01-102

Display group 003



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).

01-103

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 cabable: 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.

01-105

Remote transmitter, coding

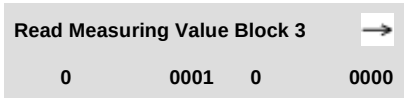
Two remote transmitters are supplied with the vehicle. If further transmitters are required, they must be coded to interact properly with the central locking control module.

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 .



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.

- 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.

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.

01-110

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.

01-112

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 .

01-113

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).

01-115

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.*

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

01-117

DTC VAG 1551 scan tool display	Possible cause	Corrective action
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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - Replace -G171-. ⇒ *Repair Manual, Body Interior, Repair Group 70*
♦ 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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - Replace -G171-. ⇒ *Repair Manual, Body Interior, Repair Group 70*

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

01-118

DTC VAG 1551 scan tool display	Possible cause	Corrective action
01379 Interior Monitor Switch-E183	♦ 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. ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder*
♦ Short circuit to Ground 1)		- 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 ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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 ⇒ *Electrical Wiring Diagrams, Troubleshooting & Component Locations binder* - 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.

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

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 .

01-126

Carrying out "Output Diagnostic Test Mode" function 03

- 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 →

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

01-128

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 .

01-130

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.

01-133

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 .

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 .

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:

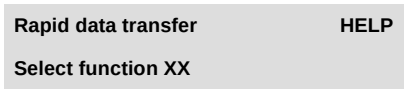
If DTC memory cannot be erased, check DTC memory again and repair malfunctions.

Requirements

- DTC memory checked
- All malfunctions repaired

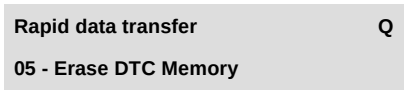
After successfully checking DTC memory:

Carrying out "Erase DTC Memory" function 05



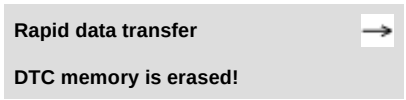
Indicated on display

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



Indicated on display

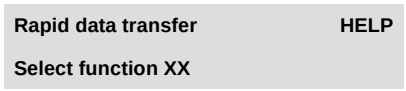
- Press -Q- button to confirm input.



Indicated on display

DTC memory is now erased.

- Press → button.



< 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.

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).