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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.

Page 2 of 41

- ◆ 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.

Page 3 of 41

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.

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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

Page 5 of 41

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

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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

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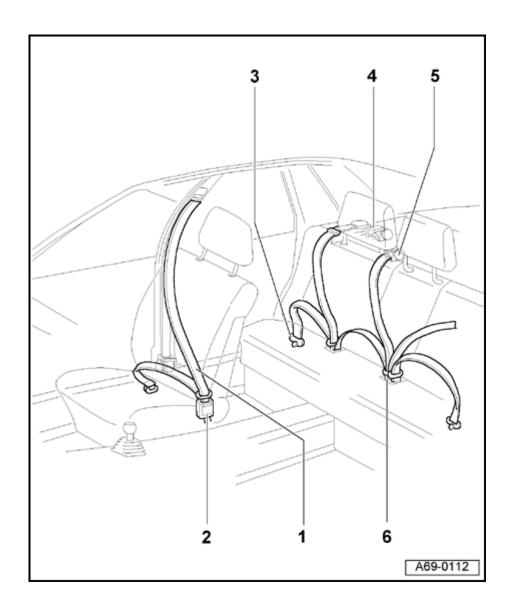
both ends of cable, pull cable housing apart until ends of cable are at least 30 cm apart.

- 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).

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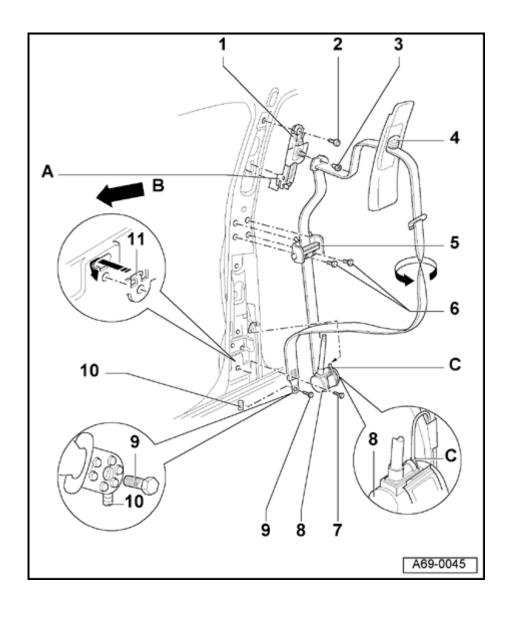
69-5

- 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.



#### 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



# 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:

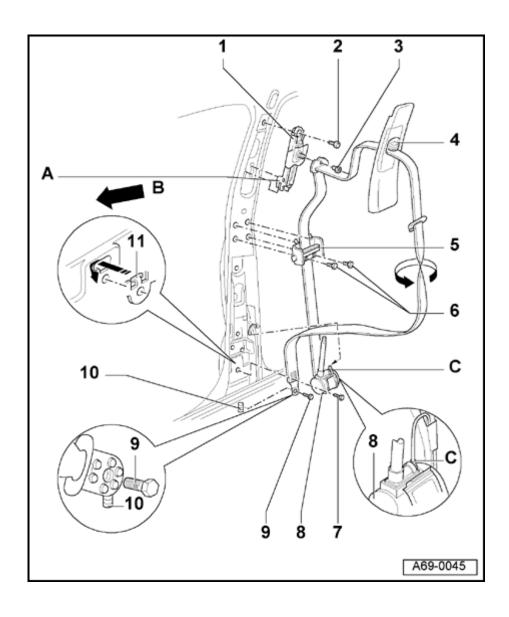
- Guide seat belt height adjuster switch -4-into height adjuster assembly -1-.

#### 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.



#### 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)

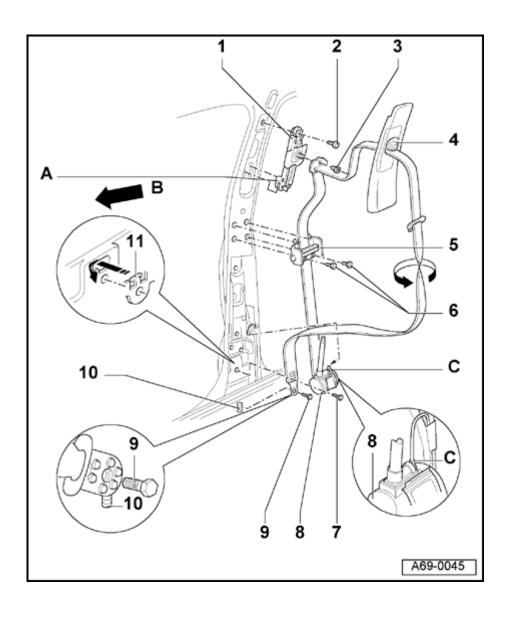
◆ 2 Nm (18 in. lb)

#### 7 - Bolt

◆ 50 Nm (37 ft lb)

#### 8 - Bolt

◆ 50 Nm (37 ft lb)



#### 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  $\Rightarrow$  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.

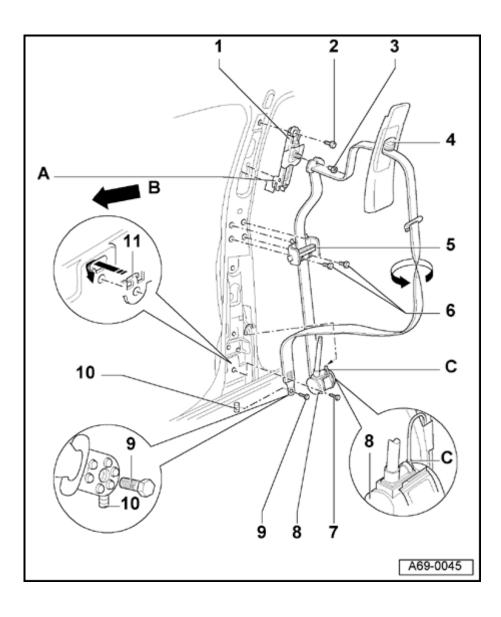
- Install belt tensioner -9- with anti-twist stop -11- as shown in magnified area.

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- Install belt webbing (turned 180  $^{\circ}$  ) as shown in illustration (arrow).

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69-10



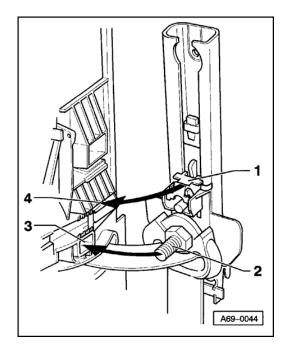
- ◆ Lower belt webbing must be bolted to metal stud -10- as shown in magnified area
- Remainder of installation is reverse of removal
  - After installing passenger side threepoint seat belt, check belt function for child seat ⇒ page 69-37.
  - Three-point seat belt must not be hindered by cables, wires 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

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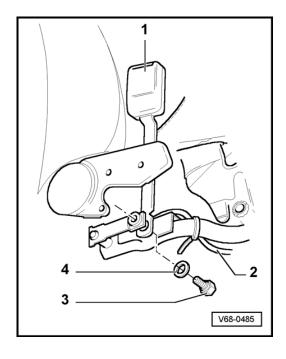
69-11



### ⋖

#### 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-.



### Belt buckle attachment point

⋖

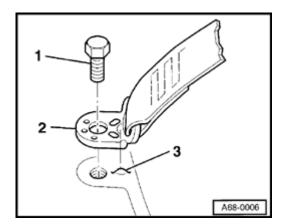
- Remove seat ⇒ page 72-2.
- 1 Buckle
- 4 Spring washer
- Remove bolt -3-.

Tightening torque: 60 Nm (44 ft lb)

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

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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

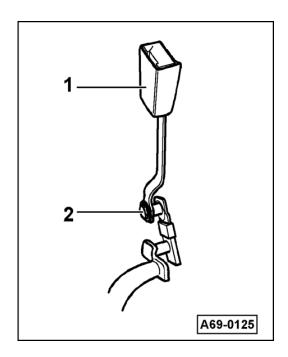
# Recaro seat buckle, removing and installing

- Remove seat ⇒ page 72-25.



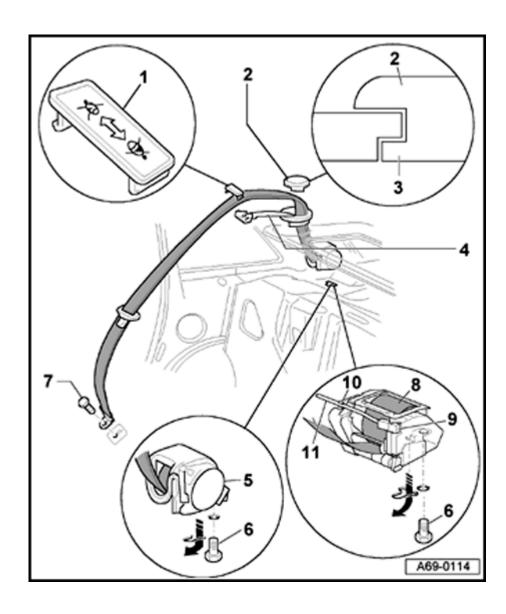
- Turn buckle -1- downward to allow access to bolt -2-.
- Remove bolt -2-.

Tightening torque: 60 Nm (44 ft lb)



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69-15



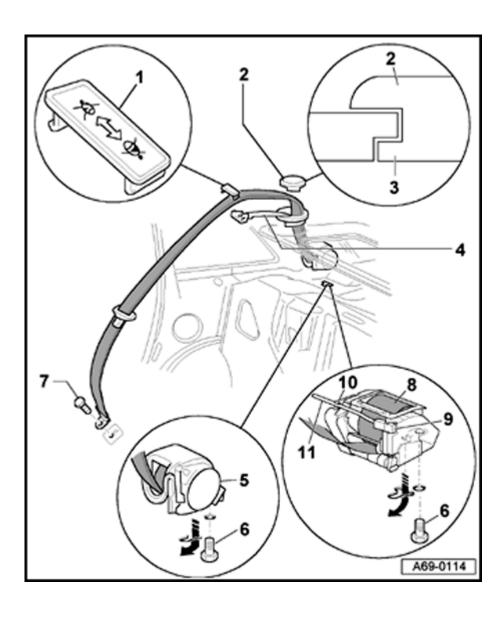
## Left and right-rear three-point seat belts, removing and installing

#### 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.



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-.

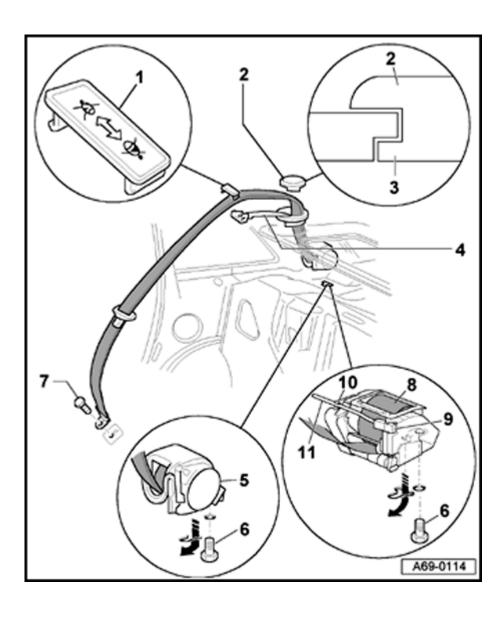
#### Note:

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

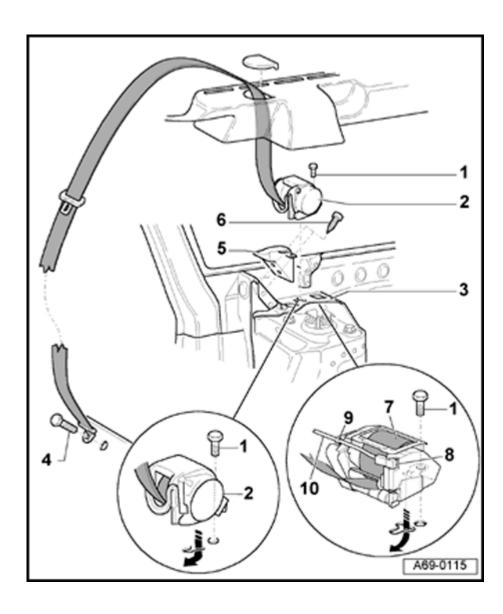
- ◆ For vehicles with belt tensioner, check beltfastened sensor ⇒ page 69-38
- ◆ After installing rear three-point seat belt, check belt function for child seat ⇒ page 69-37

Seat belts Page 21 of 41

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



- 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



#### **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  $\Rightarrow$  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-.

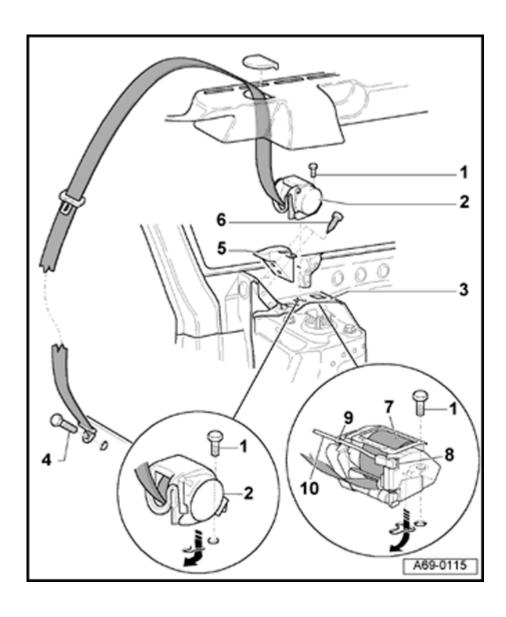
Seat belts Page 24 of 41

Note:

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

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69-19



- ◆ For vehicles with belt tensioner, check beltfastened 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

# Rear belt adjuster, removing and installing

#### Removing

#### Note:

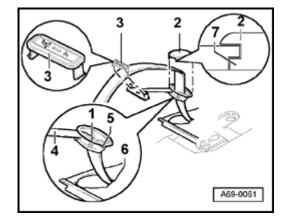
It is not necessary to remove the rear shelf when removing the rear belt adjuster.



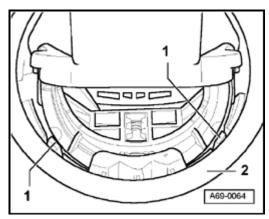
- Undo lower attachment point of rear three-point seat belt.

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.



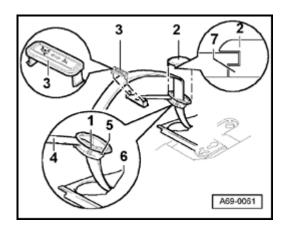
- 4
- Use screwdriver to press retaining tab -1- (2x) inward while simultaneously pulling up on belt adjuster -2-.
- Pull belt webbing through belt adjuster -2-.



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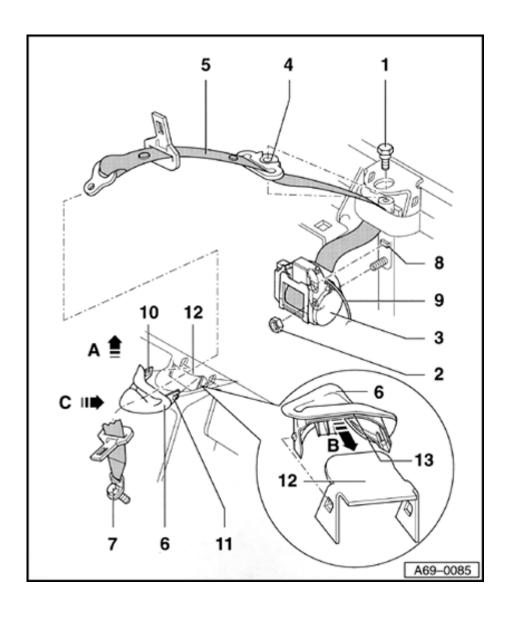
69-21







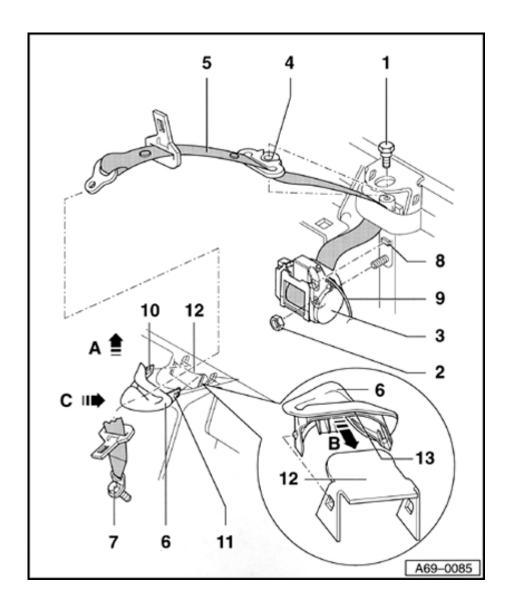
- ◆ Make sure retaining tabs -1- (2x) fully engage.
- ◆ Make sure rear lug engages in notch -6-.
- Reverse mounting protection -5- must point toward center of vehicle.



## 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.



- 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.

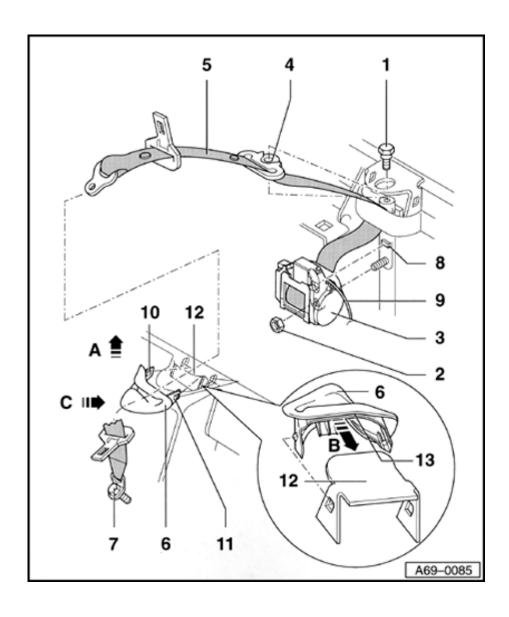
Vehicles with belt tensioner:

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

#### Notes:

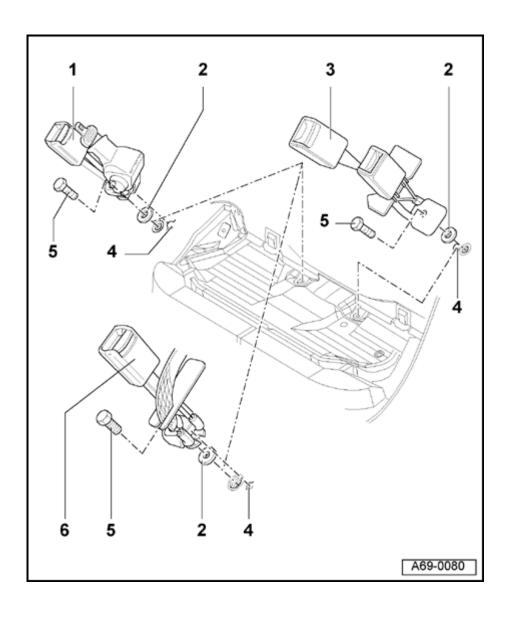
Check the following after full backrest installation:

- The anti-twist stop -4- and belt webbing -5must 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.



- 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

Seat belts Page 31 of 41



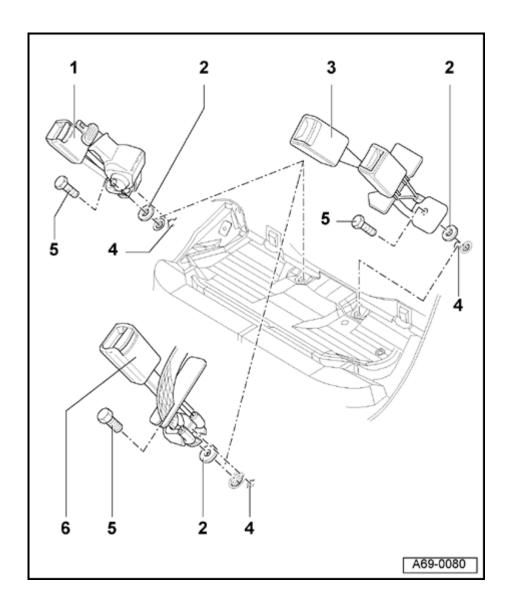
### Center floor panel attachment points

#### Removing

- Remove rear seat  $\Rightarrow$  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.

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69-26

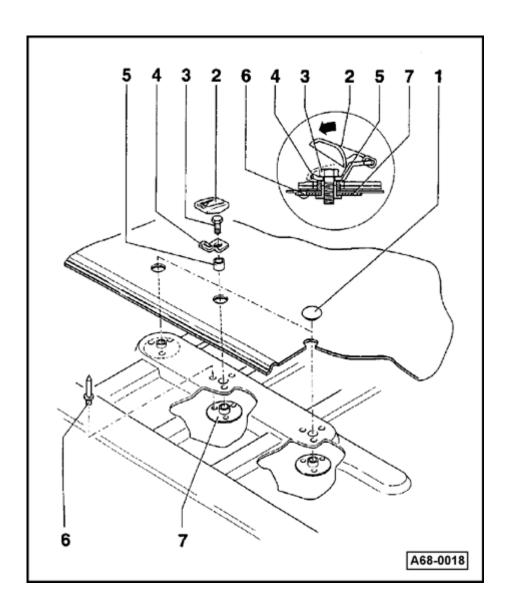


#### 1 - Lap belt with retractor

#### 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



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

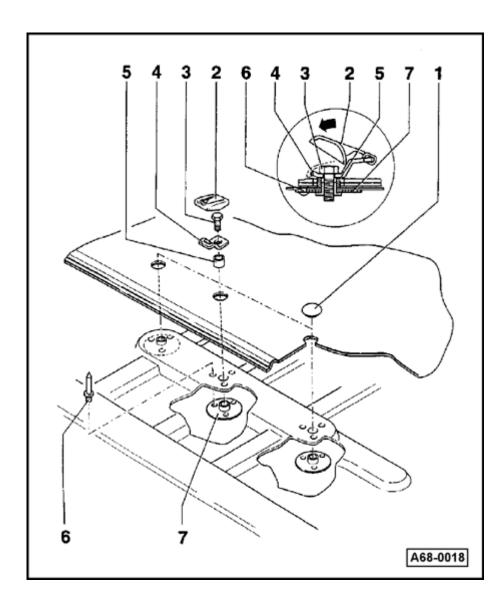
Rear upper tethers, installing

#### 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

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#### 6 - Pop rivet

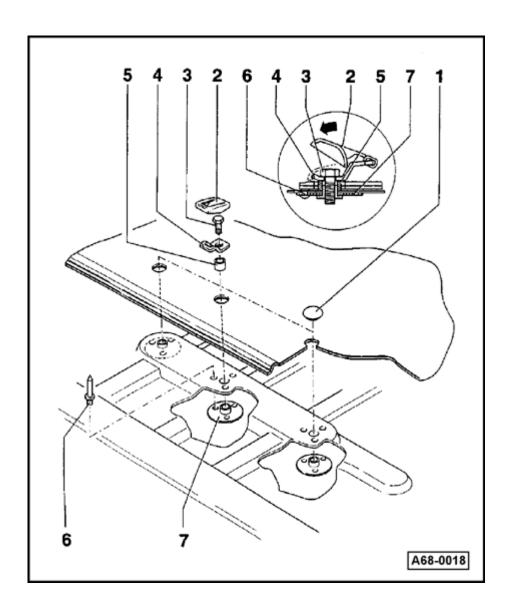
- Qty: 3 per plate
- To secure thread washer -7- on metal mounting
- Riveted from above (interior)

#### **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



#### Rear upper tethers, retrofitting

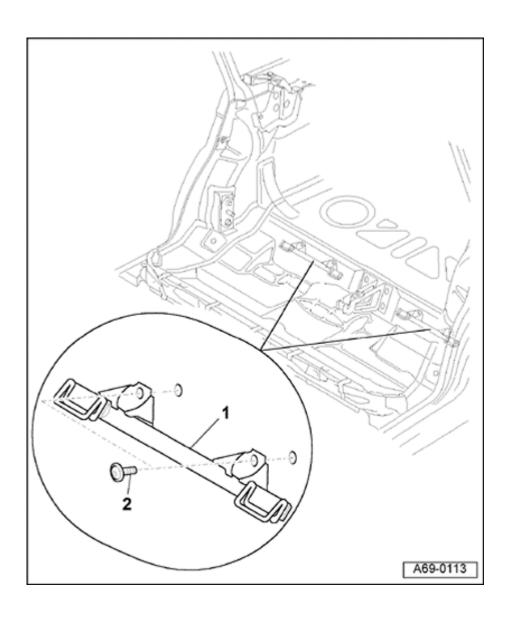
- Beginning in trunk, use felt tip marker to mark center point of center holes (3x).
- Remove rear shelf ⇒ page 70-83.

#### **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-.

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#### 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.

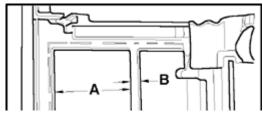
- Remove old backrest.
- ⇒ Repair Manual Body Interior Repair Group 72

#### 1/3 backrest



4

 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).



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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.

## 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

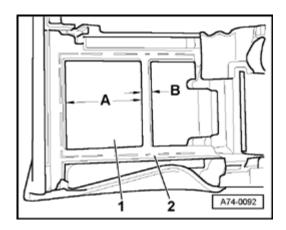
 Using sharp knife, carefully cut upholstery -1- at width of 30 mm (dimension -B-) down to indentation -2- (dimension -A- = 195 mm when measured from below).

#### 2/3 backrest

- Using sharp knife, carefully cut upholstery at reinforcements.

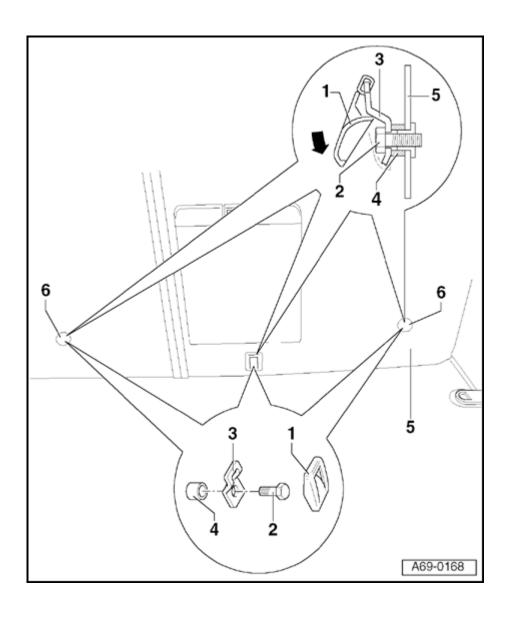
#### All backrests

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



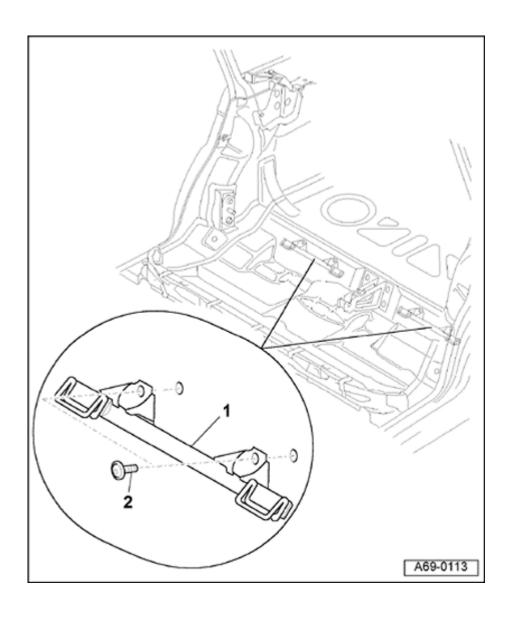
4

Seat belts Page 40 of 41



# 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 -1through -4-



#### 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.