00 - GENERAL, TECHNICAL DATA

WIRING, ROUTING AND SECURING

When loosing or removing and installing hydraulic, pneumatic or electrical lines, draw sketches or take pictures. This ensures installation is the same as the original.

CONTACT CORROSION

Contact corrosion

Contact corrosion can occur if inappropriate connecting elements (bolts, nuts, washers, etc.) are used.

For this reason, only connecting elements with a special surface coating are installed.

In addition, rubber or plastic parts and adhesives consist of non-conductive materials.

NOTE:

- **The use of original replacement parts is recommended, they are tested and are compatible with aluminum.**
- **The use of Audi accessories is recommended.**
- **Damage via contact corrosion is not covered by warranty!**

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66 - EXTERIOR EQUIPMENT

A-PILLAR AND ROOF FRAME TRIM, REMOVING

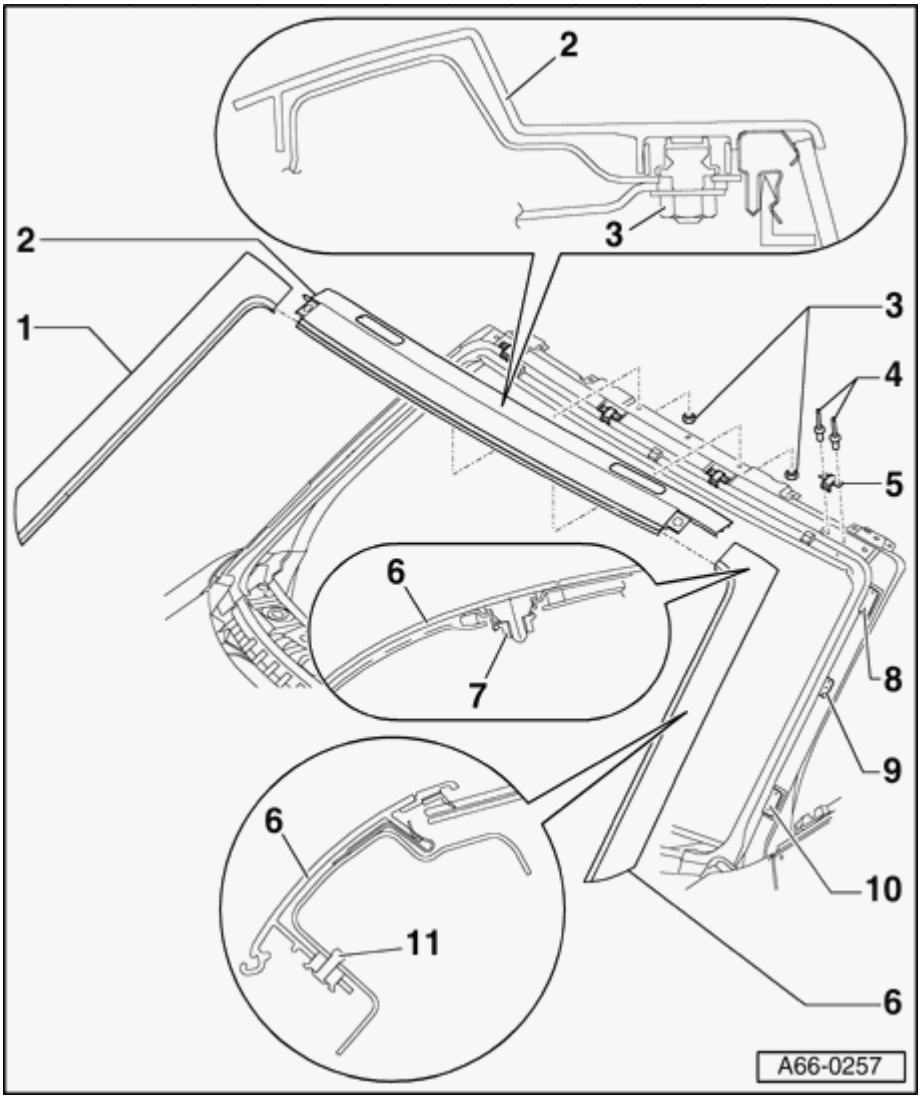


Fig. 342: A-Pillar And Roof Frame Trim, Removing Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Right A-pillar trim

- Remove A-pillar trim.
- Remove door seal in A-pillar area.
- Bore out side hollow rivet heads **A-pillar trim, removing** (Qty. 3), drive rivet shafts out and remove trim.

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2 - Roof frame trim

- Remove roof frame trim.
- Before removal, removing left and right A-pillar trim.

3 - Nut

- 6.5 Nm

4 - Pop rivet

5 - Retaining clamp

6 - Left A-pillar trim

- Removal is same as right trim.

7 - Nut

- 6.5 Nm

8 - Retaining clamp

- Movable

9 - Retaining clamp

- Fixed

10 - Retaining clamp

- Movable

11 - Pop rivet

A-pillar trim, removing

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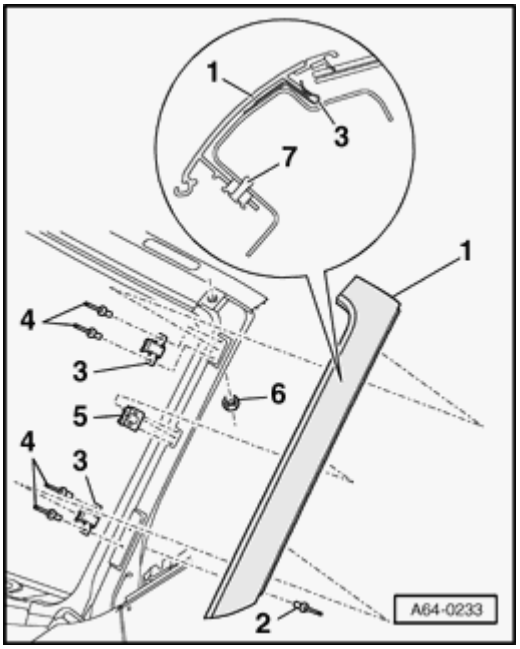


Fig. 343: A-Pillar Trim, Removing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove door seal in A-pillar area and remove A-pillar trim.
- Remove nut - **6** -.
- Drill rivet heads off hollow rivets - **2** - and - **7** - and knock rivet shafts through.
- Remove trim - **1** -.

- Upper and lower retaining clips - **3** - must move to balance out tolerances.
- Retaining clip - **5** - is fixed. It is secured to A-pillar with hollow rivets.

4 - Pop rivet

PROTECTIVE MOLDINGS

Replacing side protective moldings

NOTE:

- **Protective moldings cannot be removed without destroying them.**

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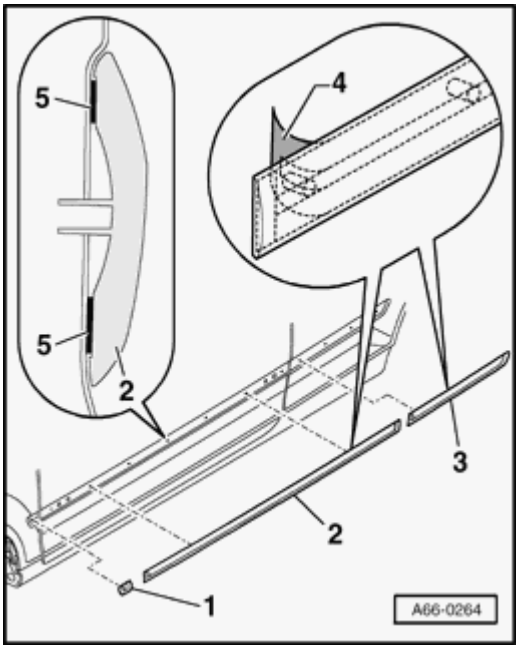


Fig. 344: Replacing Side Protective Moldings
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- To remove, warm protective strips - **1** - , - **2** - or - **3** - with a hot air gun and remove.

- Adhesion surface must be free of dust and grease.

- Clean outer panel with mineral spirits, treat with silicone remover and rub dry.

- Protective moldings must be attached only at room temperature.
- For this purpose, bring vehicle and protective moldings to room temperature at least 2 hours before processing.
- Protective moldings must be adhered within 90 minutes after protective foil has been removed.

- Pull protective foil - **4** - from double-sided adhesive tape - **5** - shortly before installation.
- Apply protective molding to be adhered at front and adhere working toward rear.
- Heat protective molding to approx. 40°C using heat gun and forcefully press on or roll on.

- After adhering strip, leave vehicle 4 hours in room temperature.

Window shaft strips

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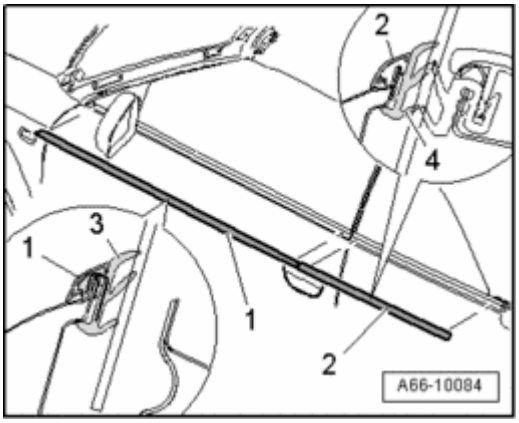


Fig. 345: Window Shaft Strips, Replacing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Window shaft strips, replacing

- Completely lower window.
- Remove window shaft strip trim - **1** - or - **2** - --> **Window shaft strips, removing and installing**.
- To remove, pull window shaft strip - **3** - upward from door or shaft strip - **4** - from side panel.
- When installing on door, first slide shaft strip under exterior mirror, then press onto door edge in stages by hand.

Trim cover for side member, removing and installing

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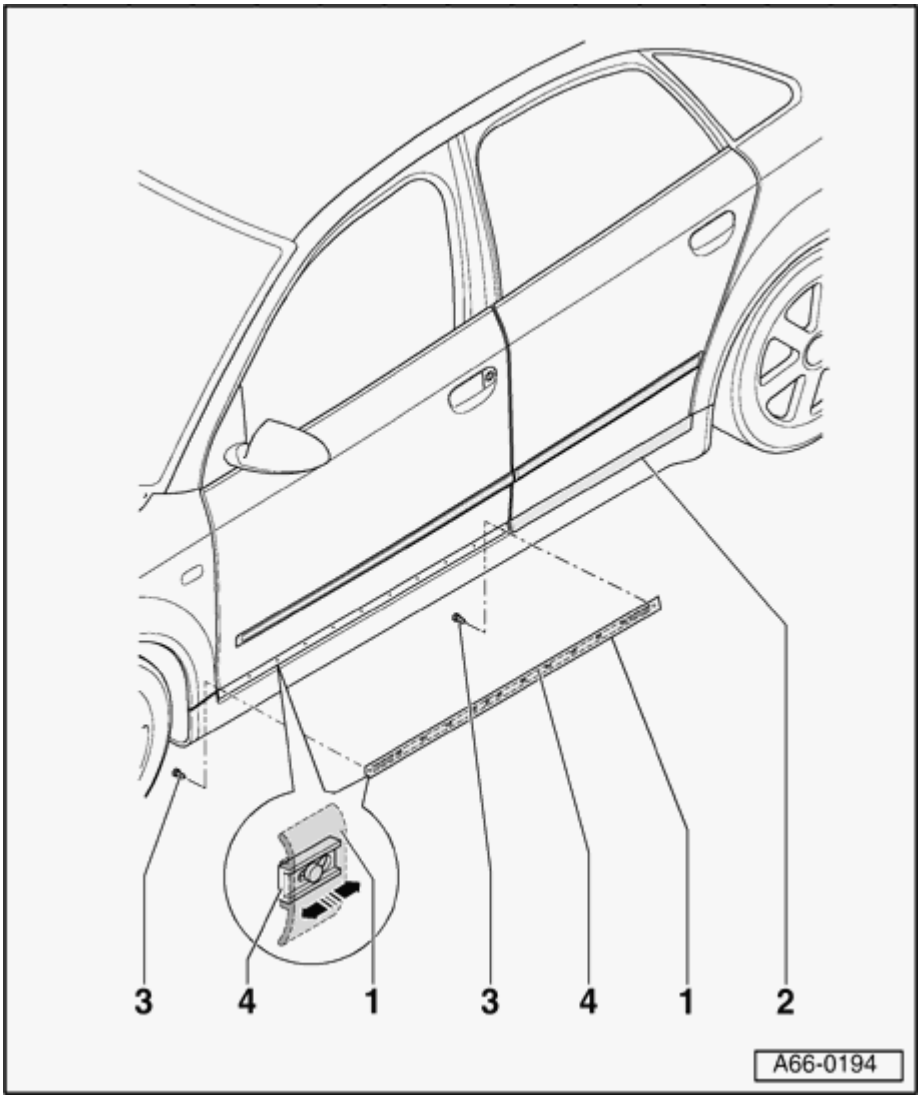


Fig. 346: Trim Cover For Side Member Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Front trim cover

- Remove trim cover sideways.

2 - Rear sill cover

- Removal as for front trim cover.

3 - Screw

- 1 Nm

4 - Clip

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OUTER DOOR SILL PANEL TRIM

Outer door sill panel trim, replacing

NOTE:

- **Outer door sill panel trim cannot be removed without destroying it.**

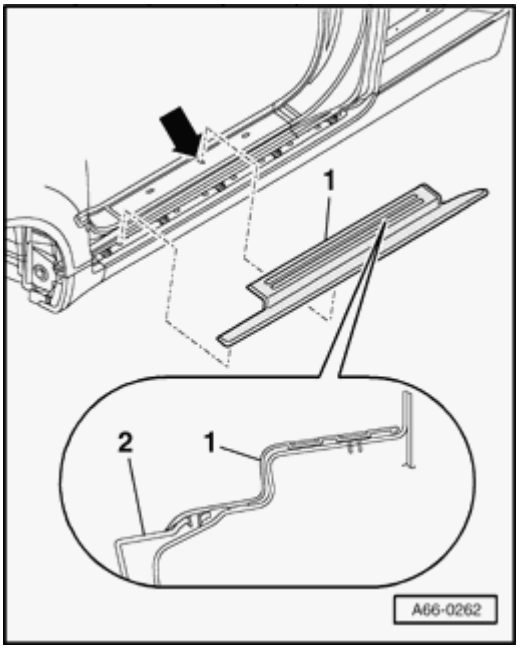


Fig. 347: Outer Door Sill Panel Trim, Replacing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Unclip sill panel trim - **1** - from sill panel cover - **2** -.
- Heat door sill molding using a hot air gun and carefully pull upward and off.
- Clean adhesion surface with mineral spirits, treat with silicone remover and rub dry.

- Door sill moldings must be attached only at room temperature.
- For this purpose, bring vehicle and door sill moldings to room temperature at least 2 hours before processing.
- Sill moldings must be adhered within 90 minutes after protective foil has been removed.

- Heat adhesion surface to approx. 40° C using a hot air gun.
- Pull protective foil from double-sided adhesive tape shortly before installation.
- Clip in door sill molding and press on.

- After adhering strip, leave vehicle 4 hours in room temperature.

SILL PANEL COVER - ASSEMBLY OVERVIEW

Sill panel cover - assembly overview

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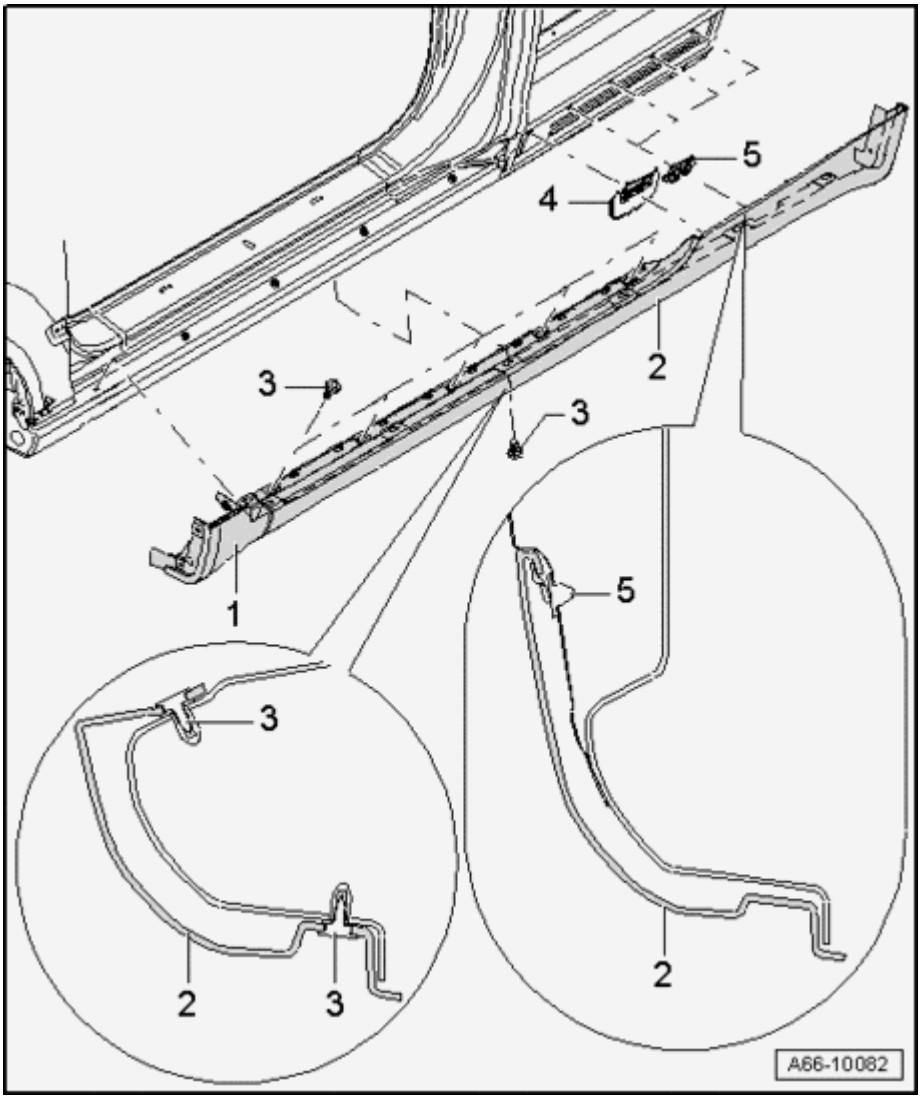


Fig. 348: Sill Panel Cover - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Front cover cap

2 - Sill panel cover

- When installing, first center trim in front clip, then slightly secure with fitting bolts.
- Engage front end cap in bracket **Cover cap, installing**.
- Tighten all bolts to specified torque.

3 - Fitting screw

- 1.5 Nm

4 - Front clip

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- With sill panel cover centering device

5 - Rear clip

Cover cap, installing

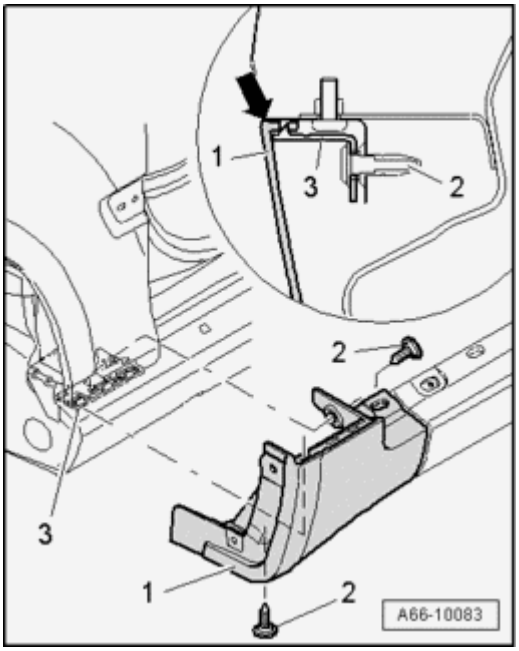


Fig. 349: Cover Cap, Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- To install, first engage cover cap - **1** - in bracket - **3** - and tighten bolts - **2** -.

2 - Screw (1.3 Nm)

REAR WHEEL SPOILER, REMOVING AND INSTALLING

Rear wheel spoiler, removing and installing

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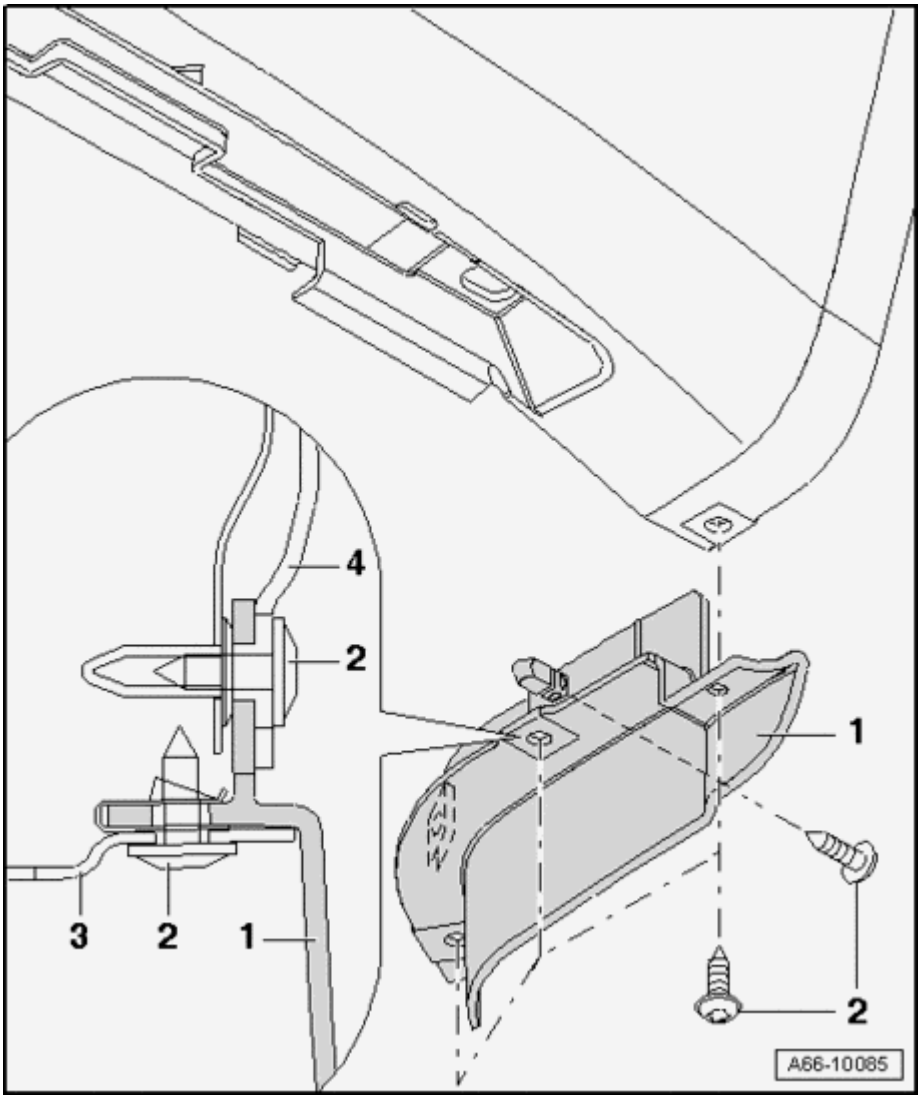


Fig. 350: Rear Wheel Spoiler Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Rear wheel spoiler

- When installing, rear wheel spoiler must be slide under wheel housing liner or under underbody trim as shown.

2 - Screw

- 3 Nm

3 - Underbody trim

4 - Rear wheel housing liner

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EXTERIOR REARVIEW MIRROR

Rearview mirror - assembly overview

Special tools, testers and auxiliary items required

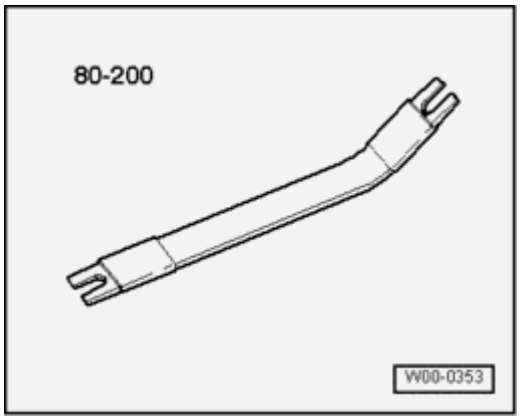


Fig. 351: Identifying Pry Lever 80-200
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pry lever 80-200

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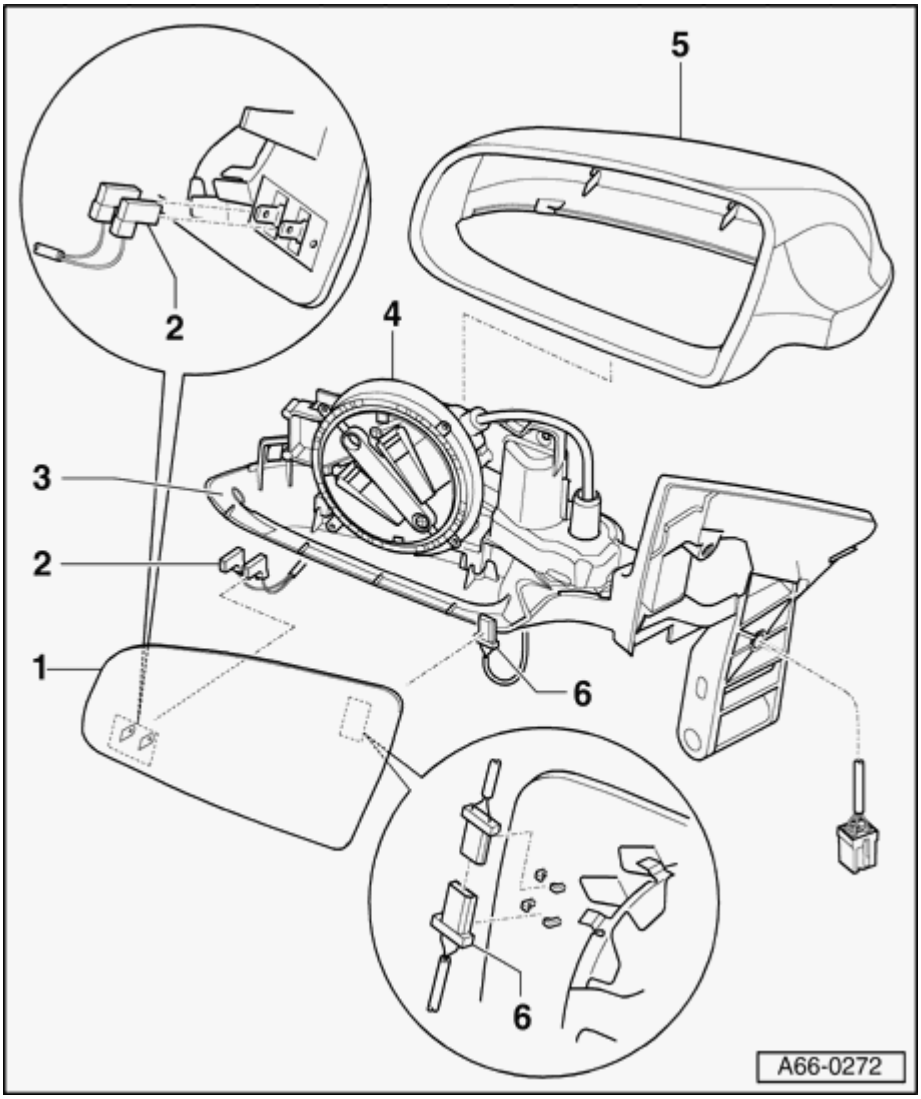


Fig. 352: Rearview Mirror - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Mirror glass

- Use Pry Lever 80-200 to unclip.
- Protect mirror housing against damage using textile tape above and below.
- Press mirror lens first downward, then upward.
- To install mirror lens into guide pins and friction finger, insert into friction spring and press on.
- Apply pressure only on center of glass, wear protective gloves while doing so.

2 - Mirror heating connector

3 - Mirror adjusting unit

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4 - Adjusting motor

- Removal --> **Mirror adjusting motor, removing and installing**.

5 - Mirror housing

- May be removed from door without removing entire exterior rearview mirror --> **Mirror housing, removing and installing**.

6 - Electrical connection

- Clip into mirror glass on rear side.

Side mirror, removing and installing

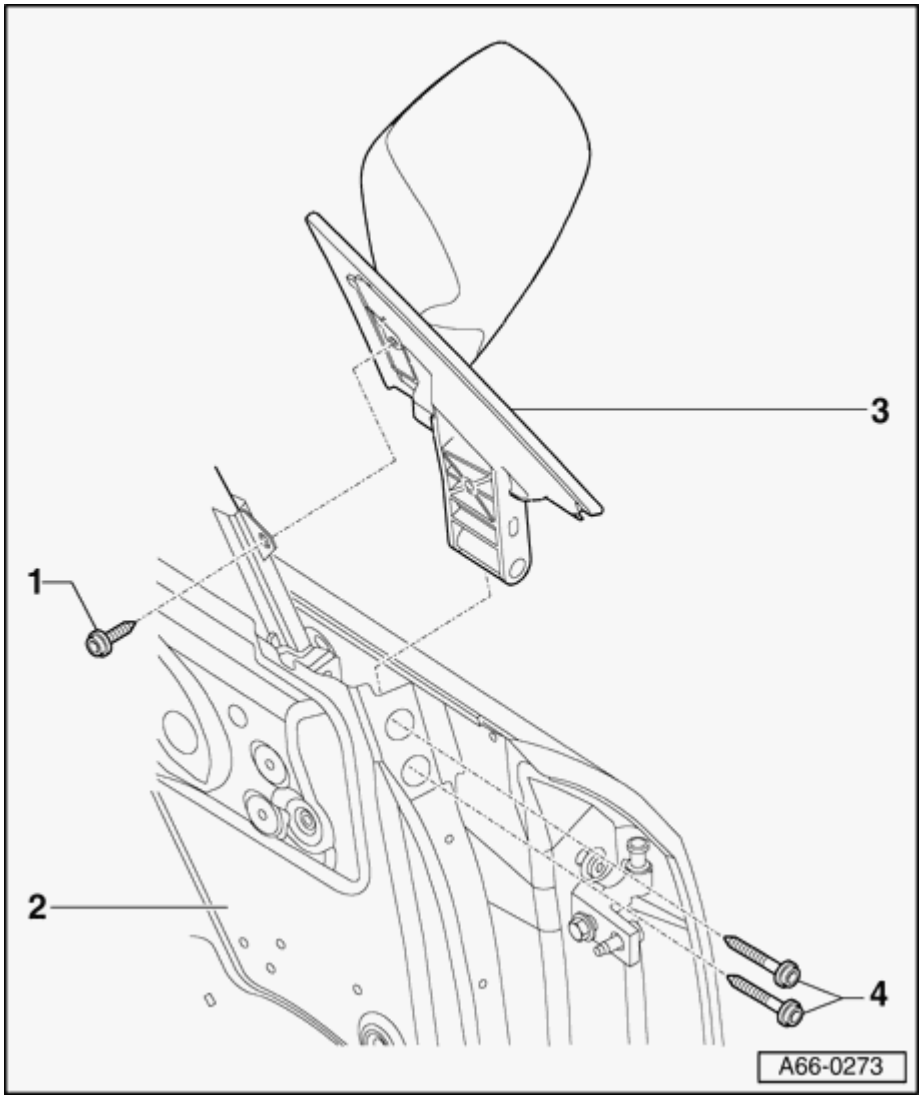


Fig. 353: Side Mirror Remove/Install Components

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Screw

- 8 Nm

2 - Front door

3 - Exterior rearview mirror

- Before removing, remove door trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .
- Remove door seal in bolt area.
  - Mark position of bolts.

4 - Screw

- 8 Nm

Mirror lens, installing

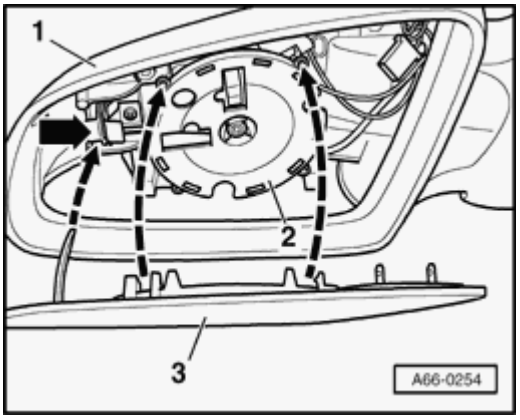


Fig. 354: Mirror Lens, Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Install mirror lens - **3** - with locking tabs onto mirror lens base - **2** - in - **direction of arrow** -.
- Friction finger must be inserted into friction spring - **arrow** - of housing - **1** - while doing so.
- Apply pressure only on center of glass, wear protective gloves while doing so.

Mirror adjusting motor, removing and installing

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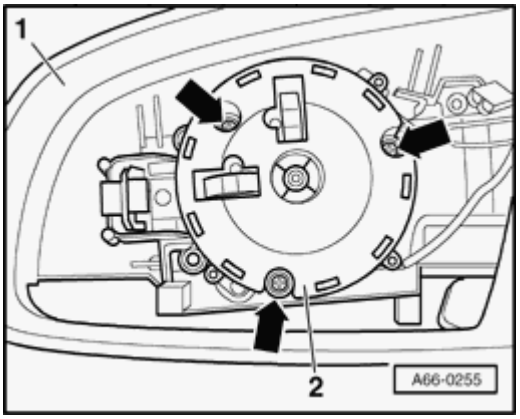


Fig. 355: Mirror Adjusting Motor Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Mirror lens removed.

- Remove bolts - **arrows** - from mirror adjusting unit.
- Remove motor - **2** - from mirror adjusting unit and disconnect electrical harness connector.

Arrow - Screw (1 Nm)

Mirror housing, removing and installing

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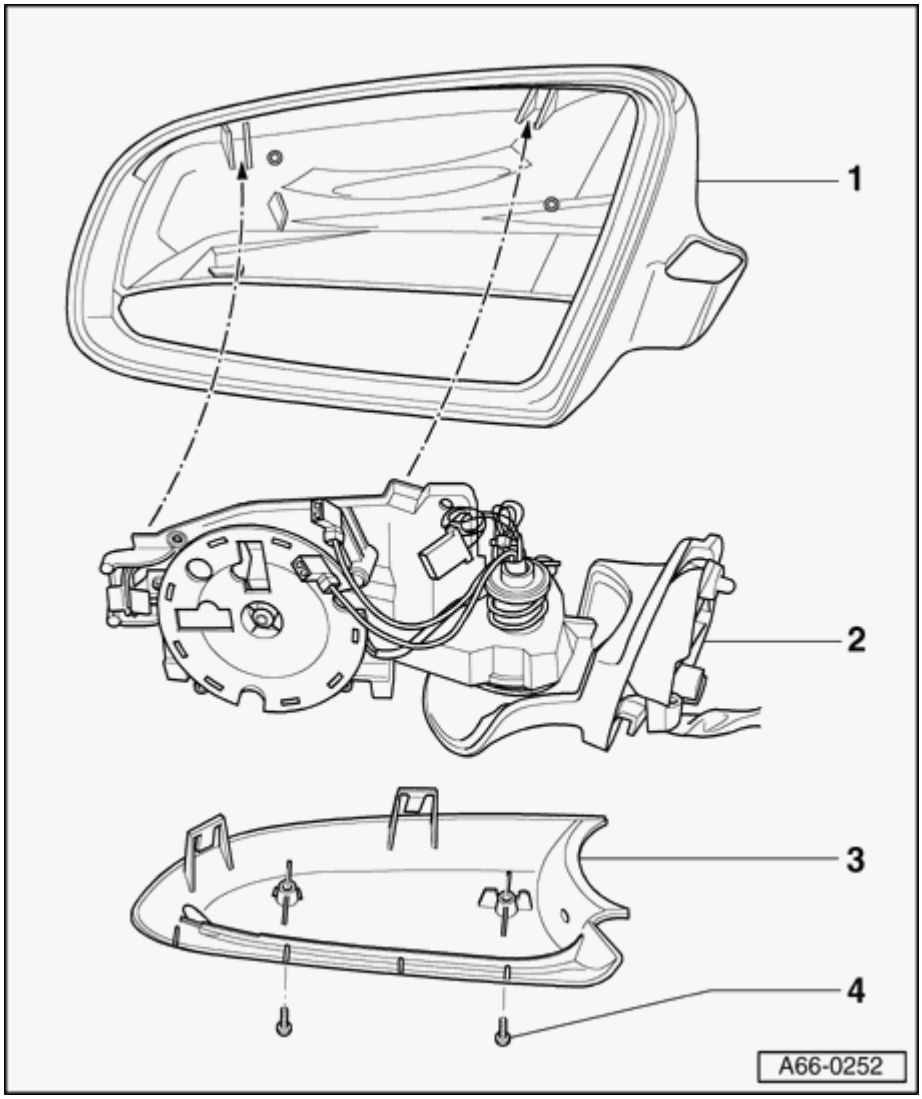


Fig. 356: Mirror Housing Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Mirror housing

- **Removing:**

  - Remove bolts from cover trim and remove downward.
  - Release housing from locking tabs on mirror adjusting unit and remove it upward.

- **Installing:**

  - Position mirror housing onto mirror adjusting unit from above.
  - While doing so, locking tabs - **arrows** - in mirror adjusting unit must engage above and below **Lower mirror locking tab**.

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2 - Mirror adjusting unit

3 - Lower cover

4 - Bolts

- 1 Nm

Lower mirror locking tab

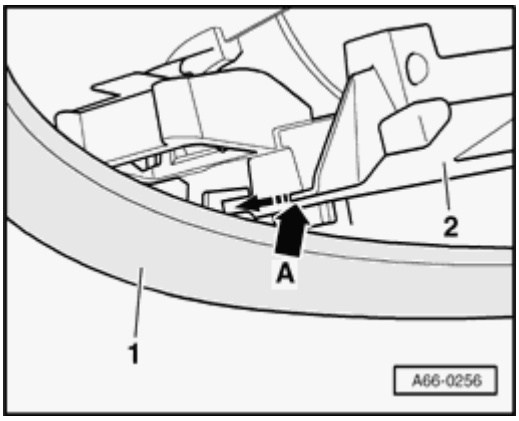


Fig. 357: Lower Mirror Locking Tab
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- When installing, locking tab - **arrow A** - of mirror adjusting unit - **2** - must be inserted into mirror housing catches - **1** - in - **direction of arrow** -.

WHEEL HOUSING LINER

Front wheel housing liner, removing and installing

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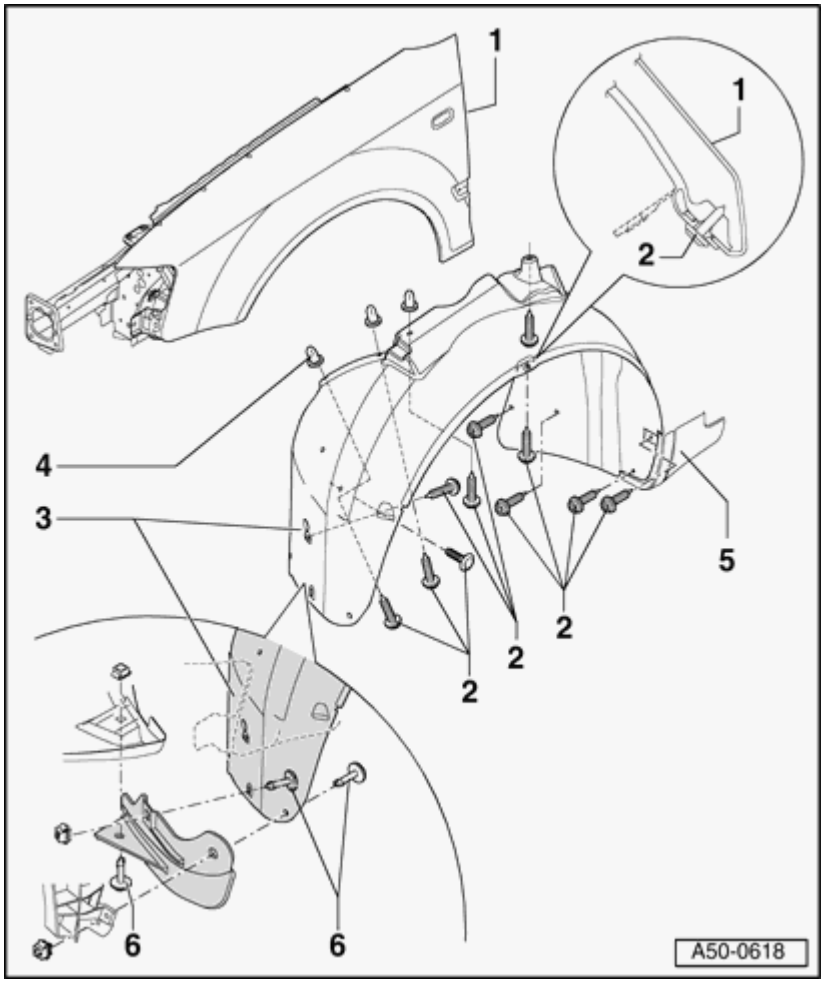


Fig. 358: Front Wheel Housing Liner Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Fender

2 - Screw

- 2.3 Nm

3 - Front wheel housing liner

- Remove front wheel before disassembly.
- Disengage wheel housing liner from fender and pull downward and out.

4 - Spreader nut

5 - Sill panel cover

6 - Quick release screw

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Rear wheel housing liner, removing and installing

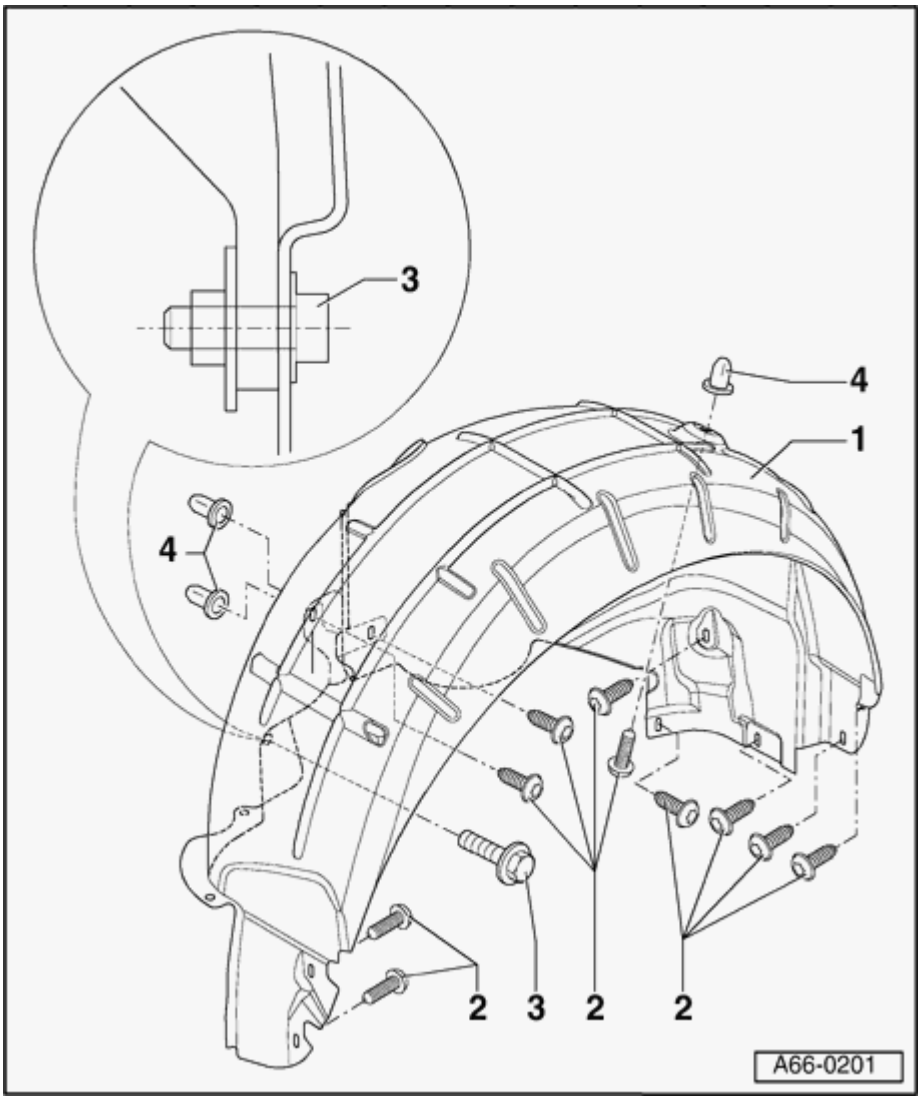


Fig. 359: Rear Wheel Housing Liner Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Rear wheel housing liner

- Remove rear wheel before disassembly.
- Remove wheelhousing liner downward.

2 - Screw

- 1.5 Nm

3 - Screw

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- Inserted only on the right side of vehicle.

4 - Spreader nut

ORNAMENTAL PARTS

Rear lid lettering

Dimensional data for front-wheel drive vehicles

NOTE:

- **Outer edges of rear lid and lines extending from lower rear lights are used as reference edges.**

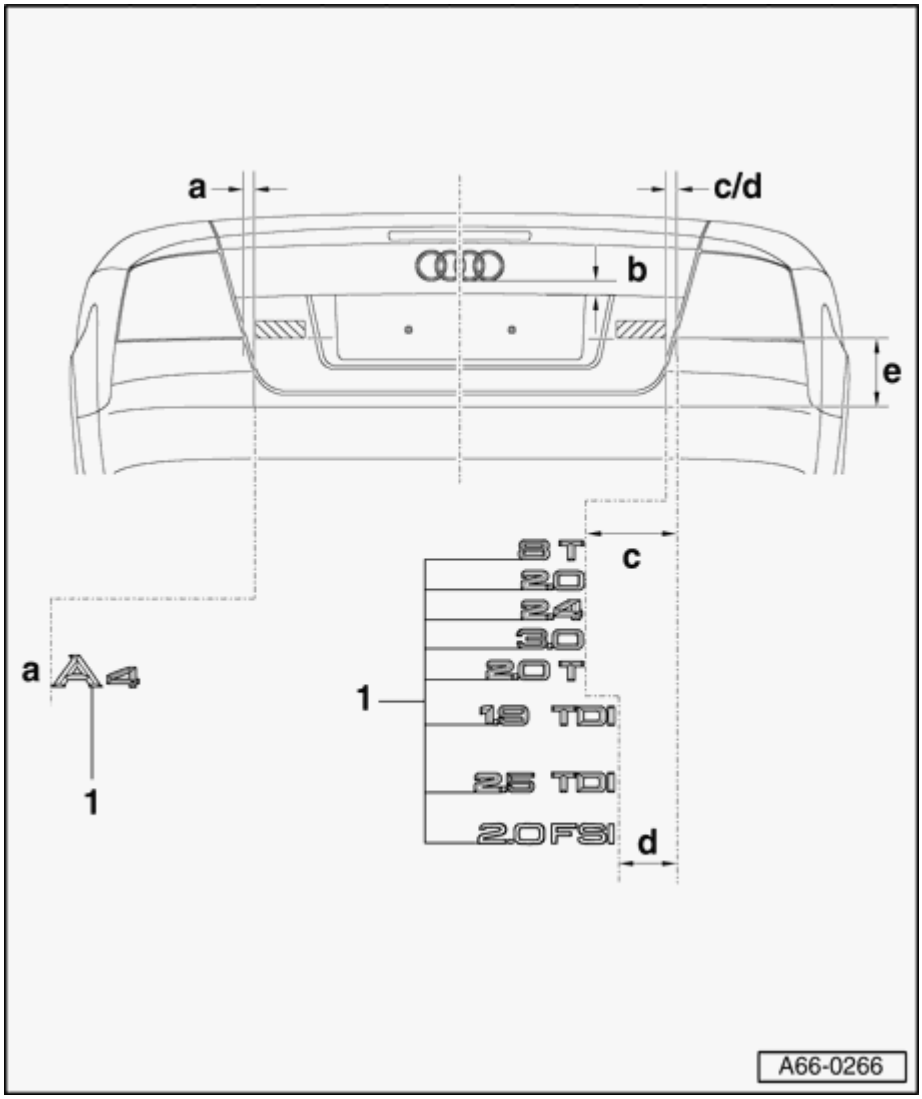


Fig. 360: Rear Lid Lettering (Dimensional Data For Front-Wheel Drive Vehicles)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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1 - Name plate

- Installation:

  - Warm vehicle and type designation to room temperature.
  - Bonding surfaces must be dry and free from dust and grease.
  - Clean outer panel with mineral spirits, treat with silicone remover and rub dry.
  - Pull off backing paper and press on characters, maintaining pressure for approx. 3 seconds.

- **- a -** = 30 mm.
- **- b -** = 28 mm.
- **- c -** = 36 mm.
- **- d -** = 28 mm.

- **- e -** = 152 mm.

Dimensional data for All Wheel Drive (AWD) vehicles

NOTE:

- **Outer edges of rear lid and lines extending from lower rear lights are used as reference edges.**

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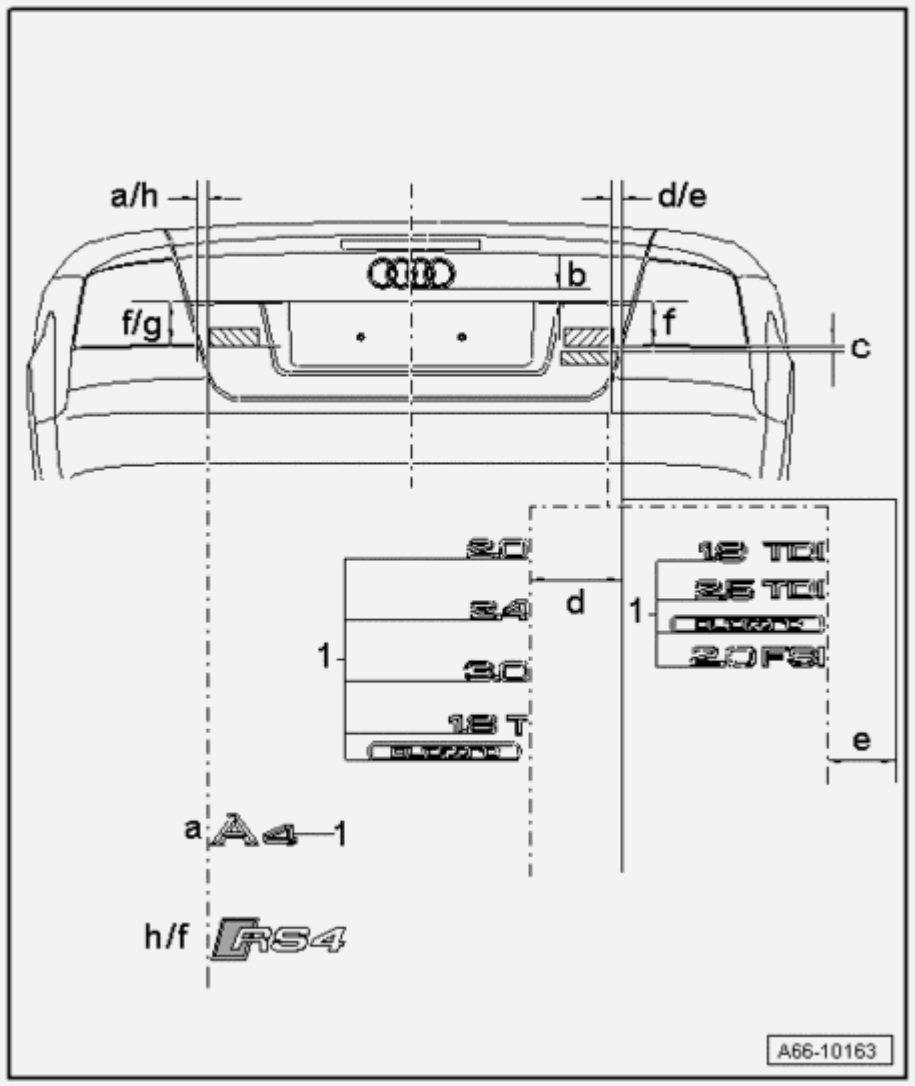


Fig. 361: Rear Lid Lettering (Dimensional Data For All Wheel Drive (AWD) Vehicles)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Name plate

- Installation:
  - Warm vehicle and type designation to room temperature.
  - Bonding surfaces must be dry and free from dust and grease.
  - Clean outer panel with mineral spirits, treat with silicone remover and rub dry.
  - Pull off backing paper and press on characters, maintaining pressure for approx. 3 seconds.
- **- a -** = 30 mm.
- **- b -** = 28 mm.
- **- c -** = 4 mm.

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- **- d -** = 36 mm.
- **- e -** = 13 mm.
- **- f -** = 53 mm.

NOTE:

- **Dimensions - g - and - h - only apply to RS4**
- **- g - = 68 mm.**
- **- h - = 18 mm.**

Window shaft strips, removing and installing

Special tools, testers and auxiliary items required

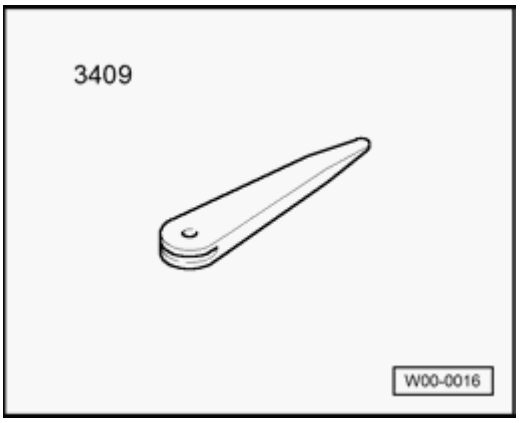


Fig. 362: Identifying Trim Removal Wedge 3409
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Trim removal wedge 3409

Removing

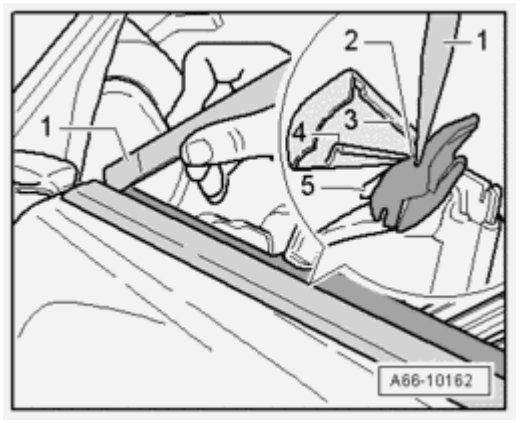


Fig. 363: Using Trim Removal Wedge 3409 To Press Upper Edge Of Rubber Strip Down Until It Slides Over Upper Edge Of Window Shaft Strip

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Using Trim Removal Wedge 3409 - **1** - , press upper edge of rubber strip - **2** - down until it slides over upper edge of window shaft strip - **3** -.
- Pull Trim Removal Wedge 3409 along strip - **arrow** - in this position.
- Remove strip.

Installing

NOTE:

- **Only use *Cleaning Solution D 009 401 04* as an installation aid.**
- **If other lubricants are used, the trim may fall off due to vibrations.**

- Engage at top and lightly press down - rail slides over rubber
- Engage top of trim - **3** -.
- With flat hand, press trim down until rubber - **5** - slides over lower edge - **4** -.
- Pull with hand in this position over complete trim.

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66 EXTERIOR EQUIPMENT

ROOF MOLDINGS

Roof joint strip (Sedan), removing and installing

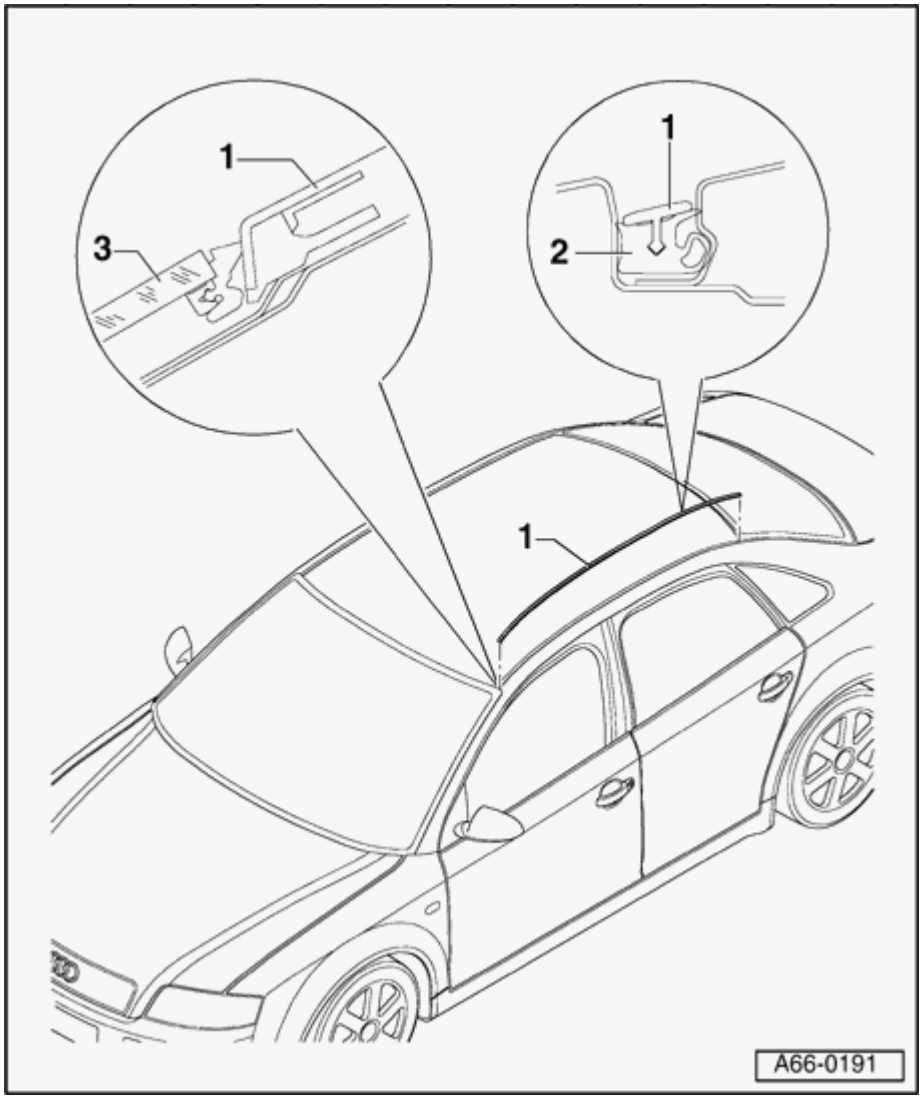


Fig. 295: Roof Joint Strip (Sedan) Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Roof joint strip

- **Removing:**
- Carefully pry out of roof joint starting from rear.
- **Installing:**
- Install seal profile - **2** - onto roof joint strip - **1** -.

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- Coat seal profile with lubricant (e.g. soap).
- Slide in roof joint strip under gap cover starting at windshield - **3** - and press into roof joint in sections up to half way.
- Also slide in roof joint strip under gap cover at rear window and press completely into roof joint.

2 - Seal profile

- Coat with lubricant before installing.

3 - Windshield

Roof joint strip, removing and installing (Avant)

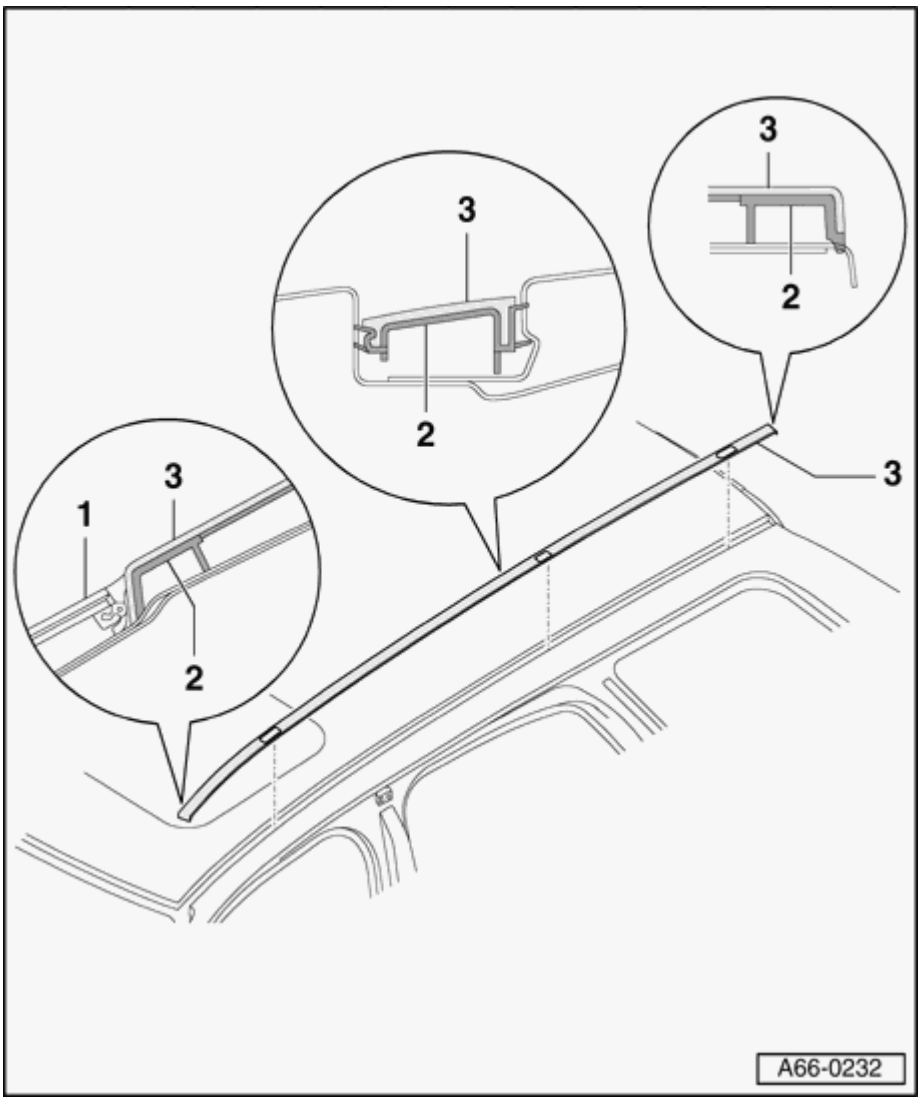


Fig. 296: Roof Joint Strip (Avant) Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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1 - Windshield

2 - Seal profile

- Coat with lubricant before installing.

3 - Roof joint strip

- **Removing:**
- Removing roof rail --> **Roof rail, removing and installing**.
- Carefully pry out of roof joint starting from rear.
- **Installing:**

- Install seal profile - **2** - onto roof joint strip.
- Coat seal profile with lubricant (e.g. soap).
- Slide on roof joint strip starting at windshield - **3** - below gap cover and press completely into roof joint by sections from front toward rear.

Roof trim molding (Sedan), removing and installing

NOTE:

- **To remove roof trim molding, it is not necessary to remove the side window.**

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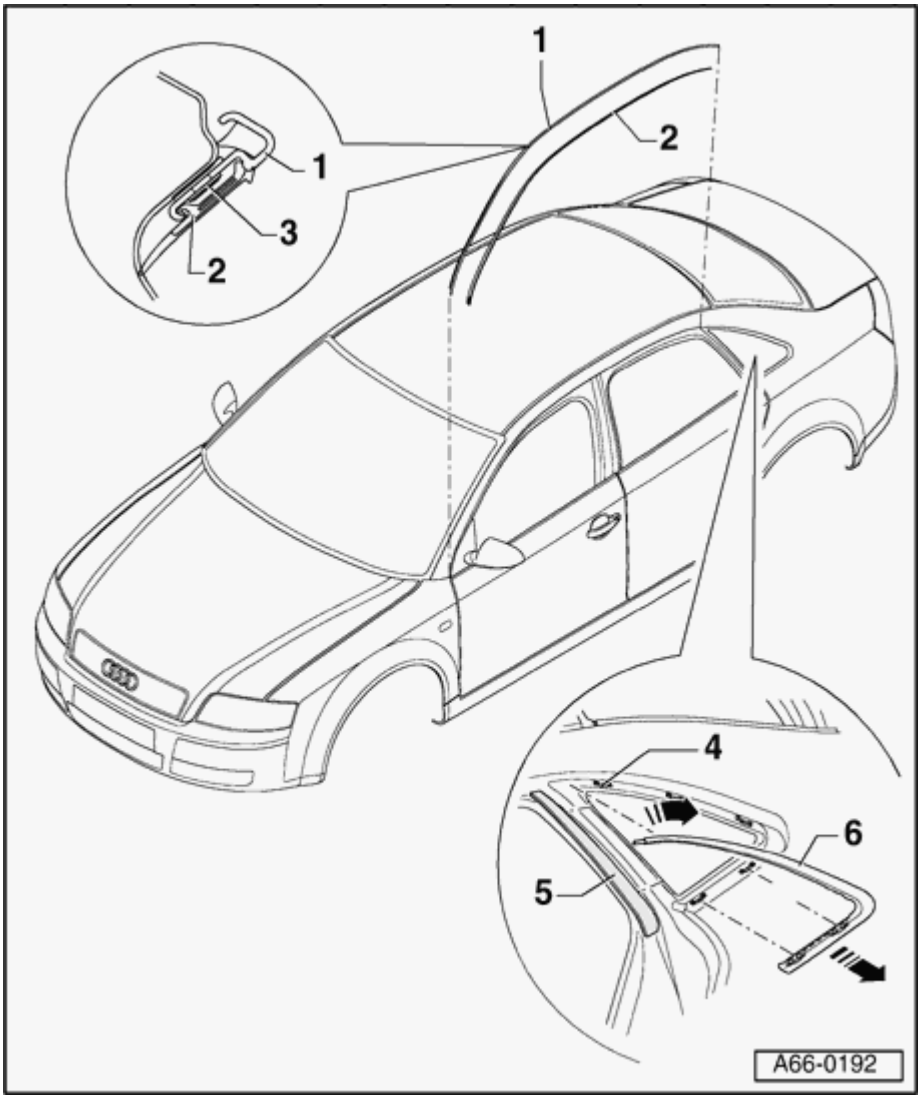


Fig. 297: Roof Trim Molding (Sedan) Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Roof trim molding

- B-pillar trim removed --> **B-pillar trim panel, removing and installing**.
- Door seals in area of roof trim molding pulled off.
- Pry out cover strip - **2** - from roof trim molding.
- Drill off rivet heads of pop rivets - **3** - , strike rivet shafts through and remove roof trim molding.

2 - Cover strip

- To ease installation, coat edges with lubricant.
- Press into roof trim molding from front toward rear.

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3 - Pop rivet

4 - Retaining clip

- 5x

5 - C- pillar trim

- Pull off in direction of travel.

6 - Roof trim molding, side window

- Pry off carefully using plastic wedge starting from bottom and pull off in - **direction of arrow** -.

CAUTION: Roof trim molding, side window may not be warped or bent, otherwise there is visual damage.

Roof trim molding, removing and installing (Avant)

NOTE:

- **To remove roof trim molding, it is not necessary to remove the side window.**

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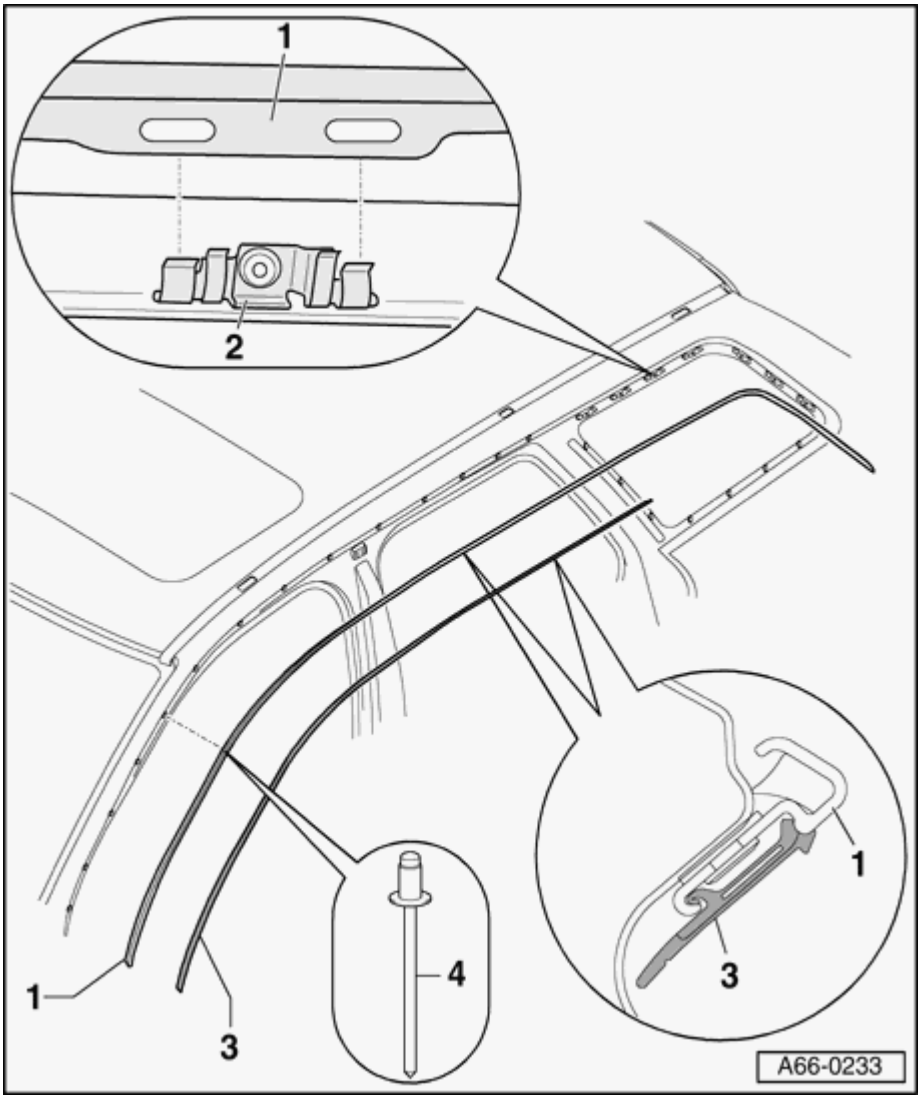


Fig. 298: Roof Trim Molding Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Roof trim molding

- B-pillar trim removed --> **B-pillar trim panel, removing and installing**.
- Remove door seals in area of roof trim molding
- Pry out cover strip - **3** - from roof trim molding.
- Drill off rivet heads of pop rivets - **3** - , strike rivet shafts through and remove roof trim molding.

- Carefully pry out roof trim molding from retaining clips - **2** - (7x) starting at A-pillar.
- On vehicles with gloss package, disengage roof trim molding from lower trim molding **Disengaging roof trim molding from trim molding under side window**

CAUTION: Roof trim molding may not be warped or bent, otherwise there is visual

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damage.

2 - Retaining clip

- 7x

3 - Cover strip

- To ease installation, coat edges with lubricant.
- Press into roof trim molding from front toward rear.

4 - Pop rivet

Disengaging roof trim molding from trim molding under side window

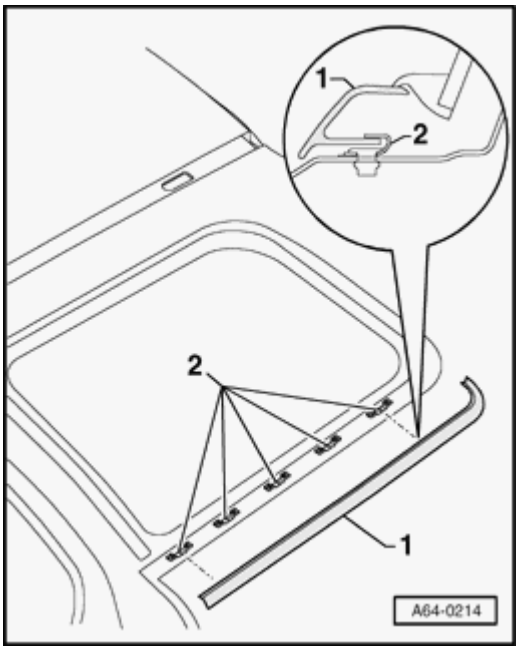


Fig. 299: Disengaging Roof Trim Molding From Trim Molding Under Side Window
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Carefully disengage loose roof trim molding from lower trim molding.

ROOF RAIL

Roof rail, removing and installing

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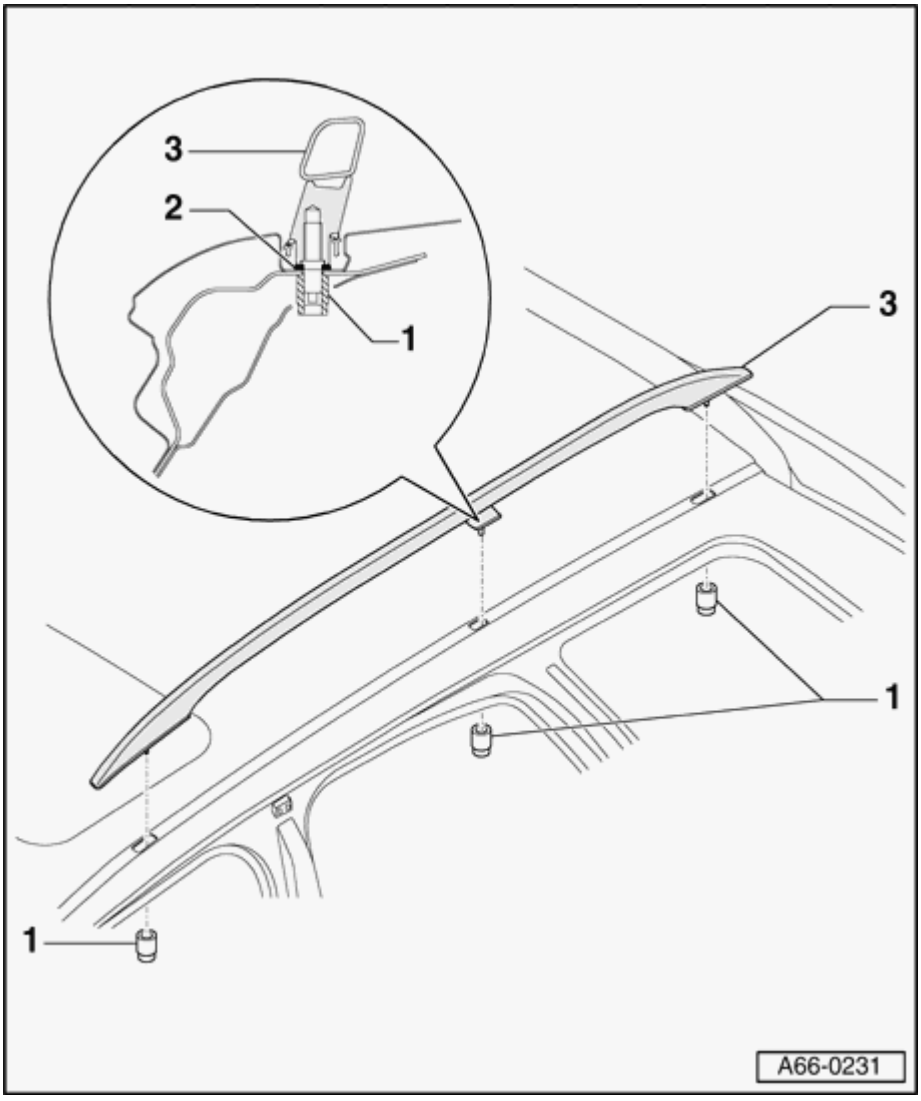


Fig. 300: Roof Rail Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Special nut

- 18 Nm

2 - Gaskets with glued seal

- Check for proper seating

3 - Roof rail

- **Removing:**
- Remove upper A-pillar trim. -->
  - **70 - INTERIOR TRIM**

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- **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

- Remove D-pillar trim. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
- Remove trim above rear door. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

- Unthread nuts - **1** - and remove roof rail.
- **Installing:**
- Check for correct seating of seals on threaded points of roof rail.
- Tighten nuts - **1** - to 18 Nm.

PROTECTIVE MOLDINGS

Replacing side protective moldings

NOTE:

- **Protective moldings cannot be removed without destroying them.**

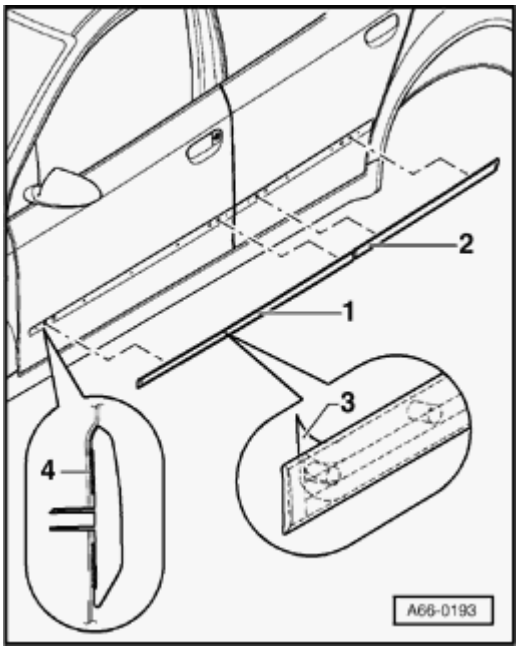


Fig. 301: Removing Protective Moldings, Heating Using A Hot Air Blower And Pulling Off From Door
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- To remove protective moldings - **1** - and - **2** - , heat using a hot air blower and pull off from door.
- Adhesion surface must be free of dust and grease.
- Clean outer panel with mineral spirits, treat with silicone remover and rub dry.

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- Protective moldings must be affixed only at room temperature.
- For this purpose, bring vehicle and protective moldings to room temperature at least 2 hours before processing.
- Protective moldings must be adhered within 90 minutes after protective foil has been removed.

- Pull protective foil - **3** - from double-sided adhesive tape - **4** - shortly before installation.
- Apply protective molding to be adhered at front and adhere working toward rear.
- Heat protective molding to approx. 40°C using heat gun and forcefully press on or roll on.

- After adhering strip, leave vehicle 4 hours in room temperature.

Trim cover for sill panel, removing and installing

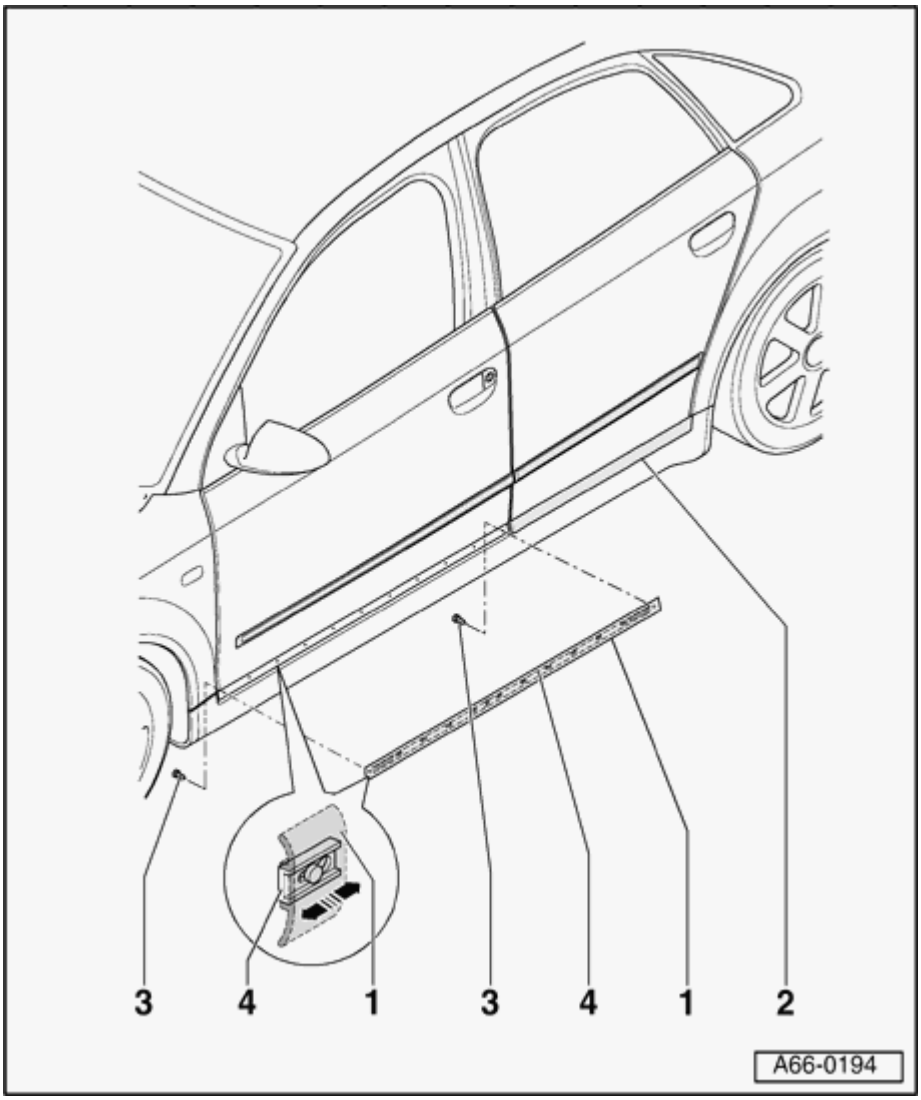


Fig. 302: Trim Cover For Sill Panel Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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1 - Front trim cover

- To remove, remove bolt - **3** - , slide trim cover with clip - **4** - toward rear and out of locking mechanism.
- Remove trim cover sideways.
- To install, insert trim cover in door, slide into locking mechanism toward front and secure with bolt - **3** -.

2 - Rear trim cover

- Removal as for front trim cover.

3 - Bolt

- 1 Nm

4 - Clip

Trim cover for sill panel, removing and installing S4

Front door

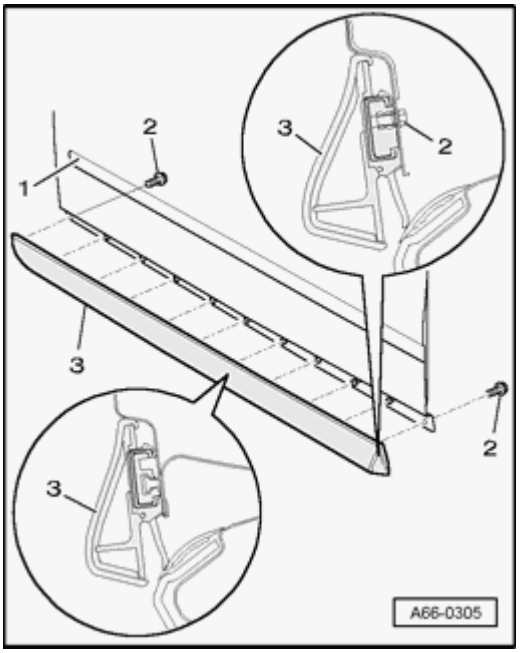


Fig. 303: Trim Cover For Sill Panel (S4) Remove/Install Components (Front Door)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- To remove, remove bolts - **2** -.
- Pull trim cover - **3** - toward rear out of retainers.
- Remove trim cover sideways from door - **1** -.
- When installing trim cover, tighten bolts - **2** - to 1Nm.

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Rear doors

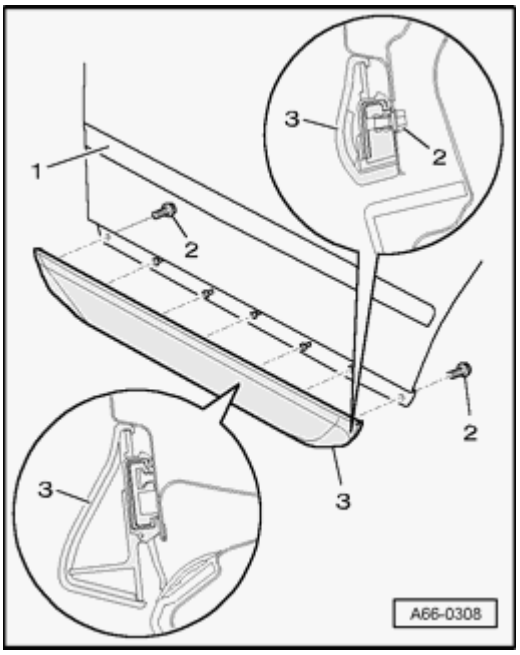


Fig. 304: Trim Cover For Sill Panel (S4) Remove/Install Components (Rear Doors)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- To remove, remove bolts - **2** -.
- Pull trim cover - **3** - toward rear out of retainers.
- Remove trim cover sideways from door - **1** -.
- When installing trim cover, tighten bolts - **2** - to 1Nm.

FACE PLATES

B-pillar trim panel, removing and installing

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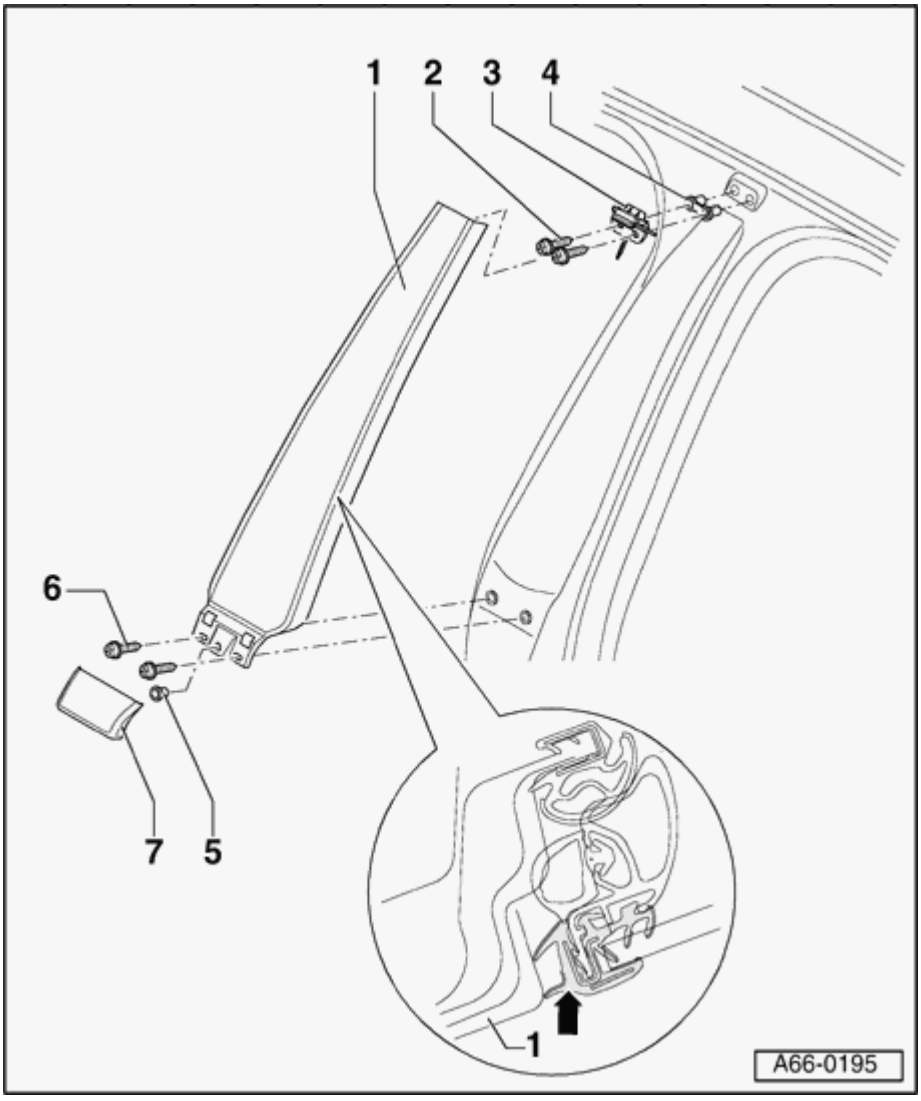


Fig. 305: B-Pillar Trim Panel Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - B pillar trim panel

Removing:

- Unclip cover - **7** -.
- Remove bolts - **6** - pull trim panel off outward.

Installation:

- With rear door opened, guide trim panel into retaining bracket.
- With rear door closed, position at top and bottom according to magnified area in illustration.
- Screw in front bolt - **6** -.

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- Outer lip of rear door window seal must make contact cleanly over entire range of trim panel.

NOTE:

- **Excessive pressure on seal at trim panel must be prevented, otherwise the projecting lip may cause wind noise.**
- **With door opened, screw in rear bolt - 6 -.**
- **Press grommet - 5 - into trim panel.**
- **Slide cover - 7 - on from below.**

2 - Bolt

- 1.5 Nm

3 - Retaining bracket

4 - Clip

5 - Grommet

6 - Combination bolt

- 5 Nm

7 - Cover

WINDOW WEATHERSTRIPS

Window weatherstrips for front door (standard vehicle), removing and installing

- Remove door trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
- Remove window frame and window regulator --> **Window frame and window regulator, removing and installing**.

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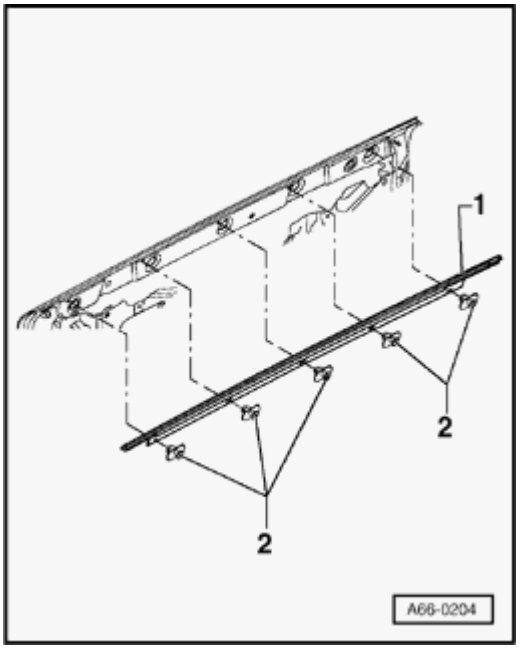


Fig. 306: Removing Clips & Window Shaft Strip
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove clips - **2** -.
- Remove window shaft strip - **1** -.
- Installation is performed in the reverse order of removal.

Front window weatherstrips (vehicles with gloss package), removing and installing

NOTE:

- **Illustrations show window weatherstrips for rear door**

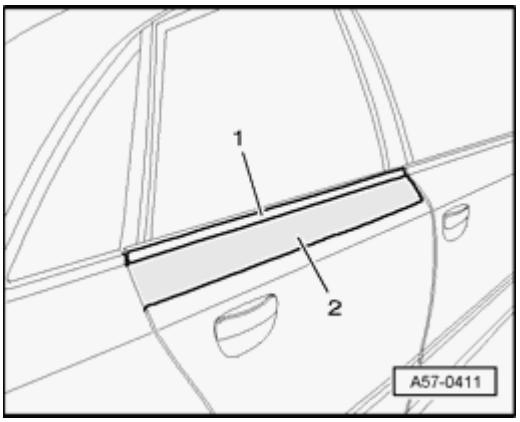


Fig. 307: Covering Area Below Window Weatherstrips With Adhesive Tape
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Cover area below window weatherstrips - **1** - with adhesive tape - **2** -.

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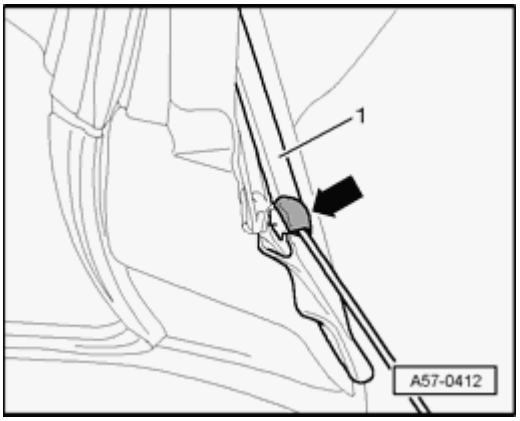


Fig. 308: Carefully Bending Up Window Weatherstrip Slightly At Rear
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Carefully bend up window weatherstrip - **1** - slightly at rear - **arrow** -.

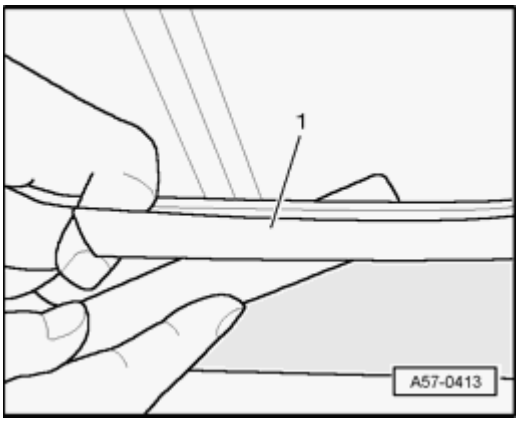


Fig. 309: Using Plastic Wedge To Pry Off Window Weatherstrip From Carrier Part At Sides
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Using a plastic wedge, pry off window weatherstrip - **1** - from carrier part at sides.

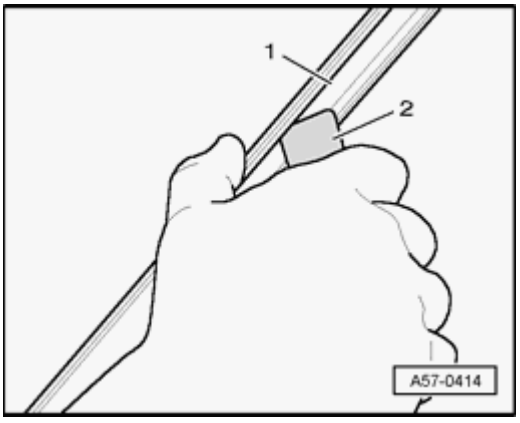


Fig. 310: Widening Slightly The Lower Edge On Inside Of New Window Weatherstrip Using Plastic Wedge

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Carefully widen slightly the lower edge on inside of new window weatherstrip - **1** - using a plastic wedge - **2** -.
- Coat this edge and carrier part with e.g. soap solution to assist installation.

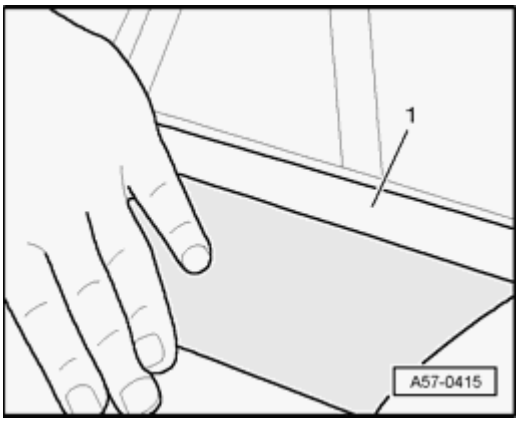


Fig. 311: Inserting Window Weatherstrip From Above And Pressing Window Weatherstrip Completely Onto Carrier Part By Hand
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Insert window weatherstrip - **1** - from above and carefully press window weatherstrip completely onto carrier part by hand.

Window weatherstrips for rear door (standard vehicle), removing and installing

- Remove door trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
- Remove window frame and window regulator --> **Window frame and window regulator, removing and installing**.

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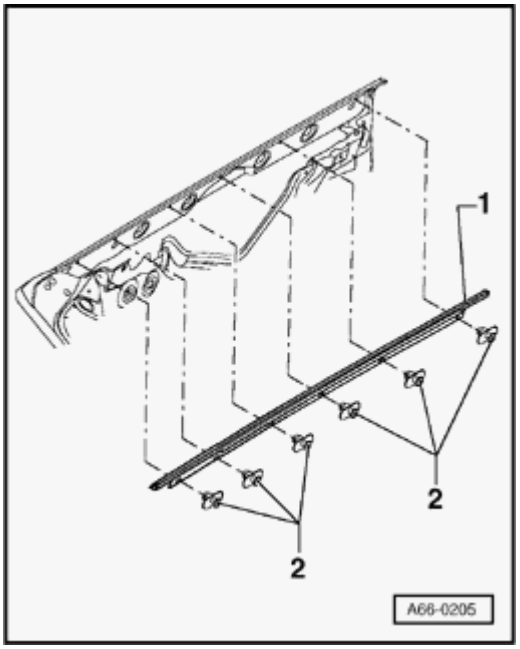


Fig. 312: Removing Clips & Window Weatherstrips
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove clips - **2** -.
- Remove window weatherstrips - **1** -.
- Installation is performed in the reverse order of removal.

Rear window weatherstrips (vehicles with gloss package), removing and installing

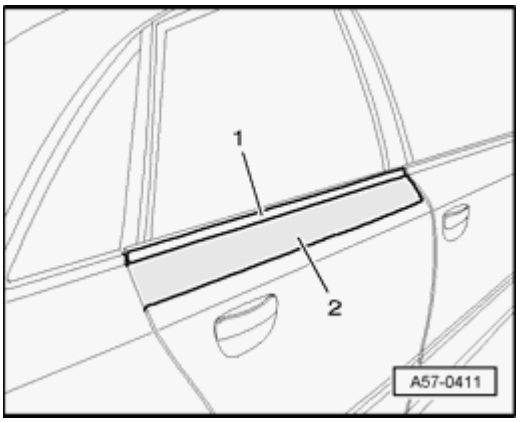


Fig. 313: Covering Area Below Window Weatherstrips With Adhesive Tape
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Cover area below weatherstrips - **1** - with adhesive tape - **2** -.

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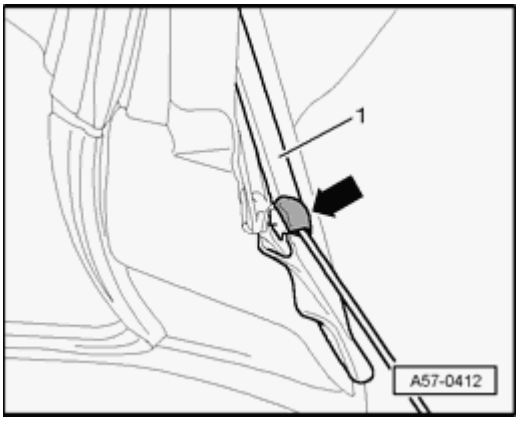


Fig. 314: Carefully Bending Up Window Weatherstrip Slightly At Rear
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Carefully bend up weatherstrips - **1** - slightly at rear - **arrow** -.

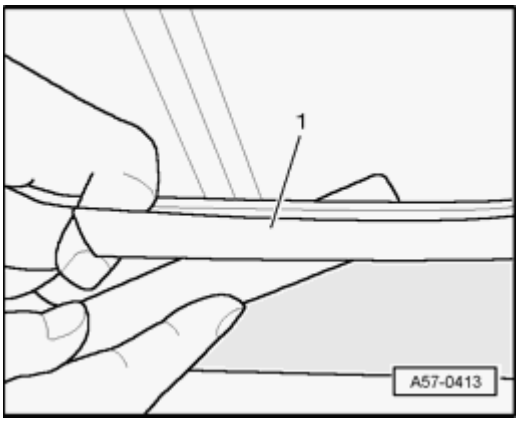


Fig. 315: Using Plastic Wedge To Pry Off Window Weatherstrip From Carrier Part At Sides
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Using a plastic wedge, pry off weatherstrips - **1** - from carrier part at sides.

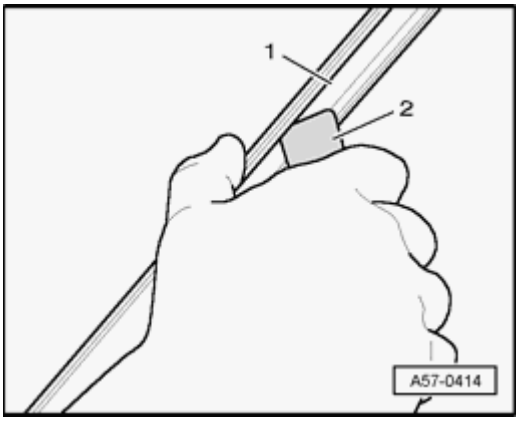


Fig. 316: Widening Slightly The Lower Edge On Inside Of New Window Weatherstrip Using Plastic Wedge

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Carefully widen slightly the lower edge on inside of new weatherstrips - **1** - using a plastic wedge - **2** -.
- Coat this edge and carrier part with e.g. soap solution to assist installation.

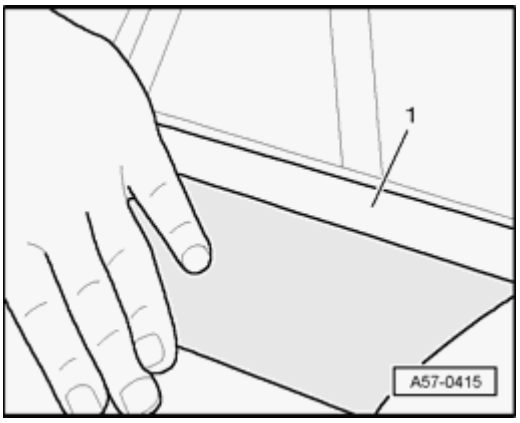


Fig. 317: Inserting Window Weatherstrip From Above And Pressing Window Weatherstrip Completely Onto Carrier Part By Hand
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Insert weatherstrips - **1** - from above and carefully press weatherstrips completely onto carrier part by hand.

OUTSIDE REAR VIEW MIRROR

Outside rear view mirror, removing and installing

Special tools, testers and auxiliary items required

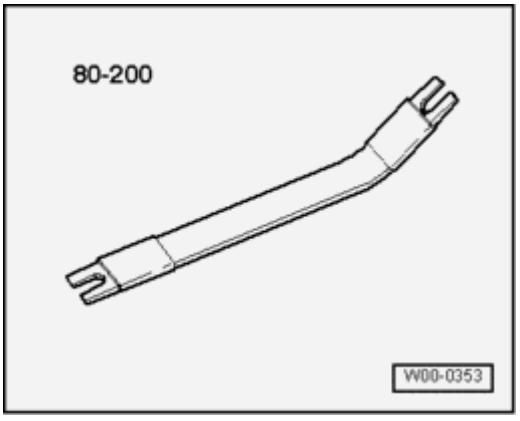


Fig. 318: Identifying Pry Lever 80-200
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Lever 80-200

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Assembly overview

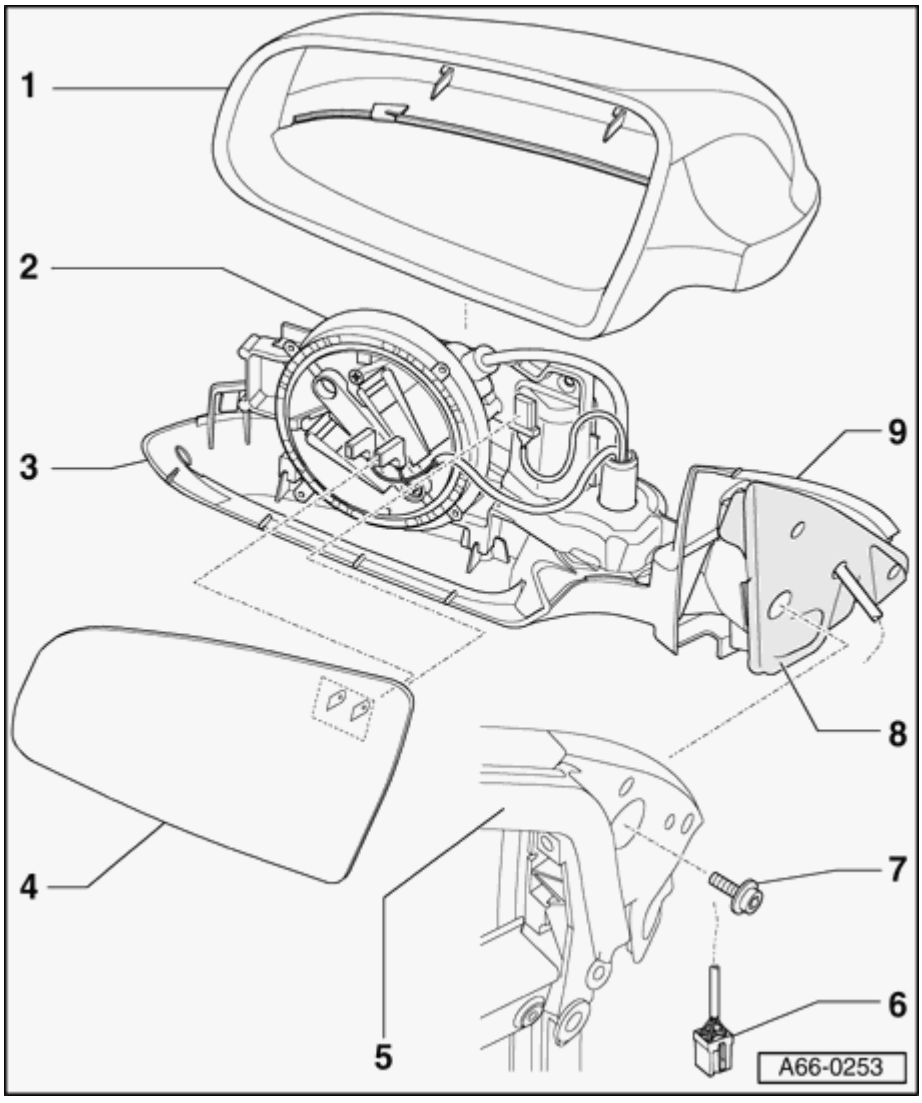


Fig. 319: Outside Rear View Mirror Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Mirror housing

- May be removed from door without removing entire rearview mirror --> **Outside rear view mirror housing, removing and installing**.

2 - Adjusting motor

- Removal --> **Outside rear view mirror adjusting motor, removing and installing**

3 - Mirror adjusting unit

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- Before replacing, window frame must be removed --> **Window frame and window regulator, removing and installing**.
- Before removing, remove rearview mirror from door
- To remove, pry off mirror lens, disconnect electrical harness connectors for mirror heater, remove phillips-head screws - **6** - and remove mirror adjusting unit from mirror housing - **1** -.

4 - Mirror lens

- Use special tool Lever 80-200 to unclip.
- Protect mirror housing against damage using textile tape above and below.
- Press mirror lens first downward, then upward.
- To install mirror lens into guide pins and friction finger, insert into friction spring and press on.
- Apply pressure only on center of glass, wear protective gloves while doing so.

5 - Front door

6 - Electrical harness connector

7 - Combination bolt

- 12 Nm

8 - Seal

- Ensure correct seating when installing.

9 - Mirror base

Outside rear view mirror lens, installing

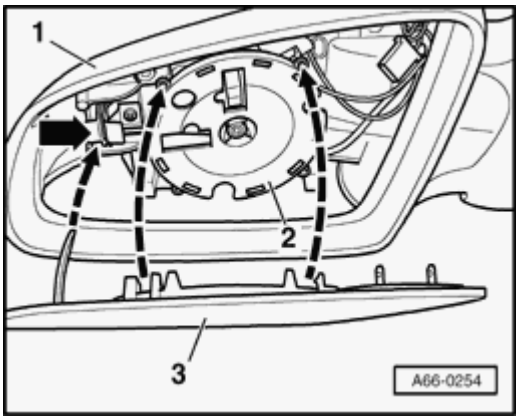


Fig. 320: Outside Rear View Mirror Lens, Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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- Install mirror lens - **3** - with locking tabs onto mirror lens base - **2** - in - **direction of arrow** -.
- Friction finger must be inserted into friction spring - **arrow** - of housing - **1** - while doing so.
- Apply pressure only on center of glass, wear protective gloves while doing so.

Outside rear view mirror adjusting motor, removing and installing

- Mirror lens removed.

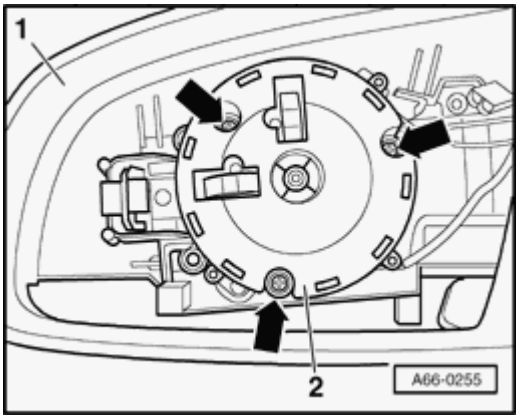


Fig. 321: Outside Rear View Mirror Adjusting Motor, Removing And Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts - **arrows** - from mirror adjusting unit.
- Remove motor - **2** - from mirror adjusting unit and disconnect electrical harness connector.
- When installing, tighten bolts to 1 Nm.

Outside rear view mirror housing, removing and installing

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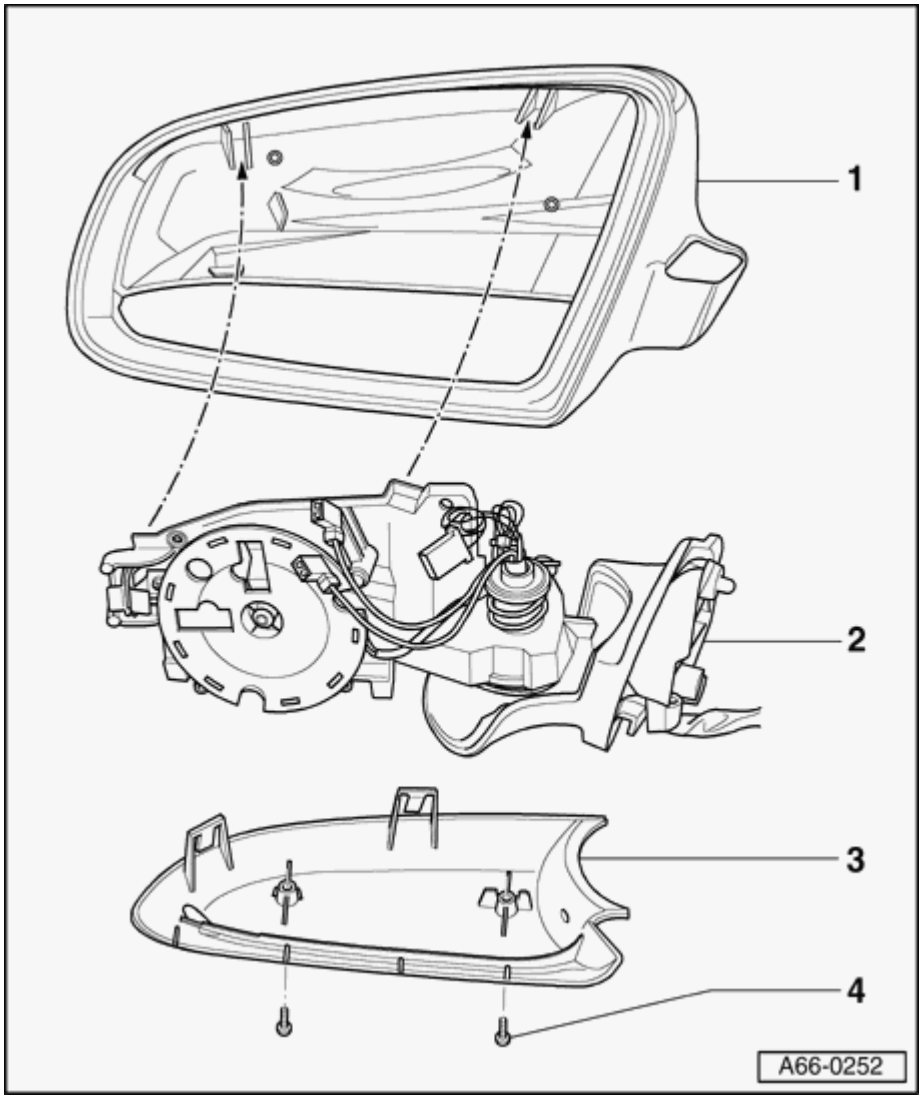


Fig. 322: Outside Rear View Mirror Housing Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Mirror housing

- **Removing:**
- Remove bolts - **4** - from cover trim - **3** - and remove them downward.
- Release housing from locking tabs on mirror adjusting unit and remove it upward.
- **Installing**

- Position mirror housing onto mirror adjusting unit - **2** - from above.
- While doing so, locking tabs - **arrows** - in mirror adjusting unit must engage above and below **Lower mirror locking tab**.

2 - Mirror adjusting unit

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3 - Lower trim strip.

4 - Combination bolts

- 1Nm

Lower mirror locking tab

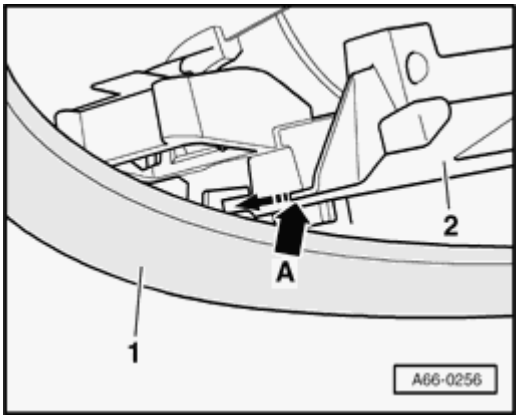


Fig. 323: Lower Mirror Locking Tab
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- When installing, locking tab (- **arrow A** -) of mirror adjusting unit - **2** - must be inserted into mirror housing catches - **1** - in - **direction of arrow** -.

OUTER SILL PANEL TRIM

Outer sill panel trim, replacing

NOTE:

- **Outer sill panel trim cannot be removed without destroying it.**

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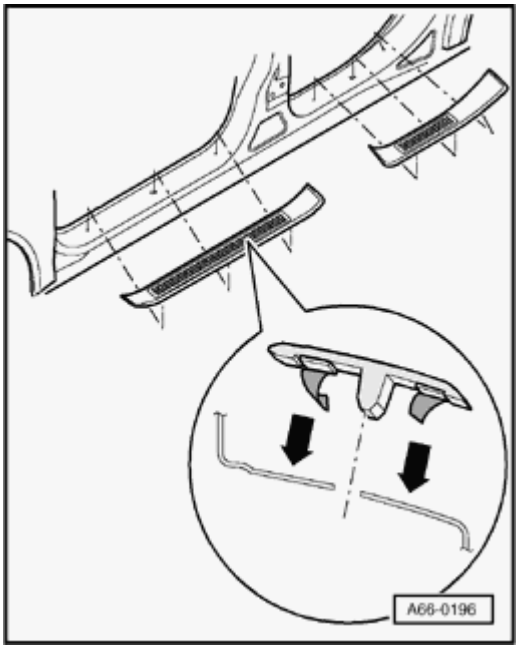


Fig. 324: Removing/Installing Door Sill Panel Trim
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Heat door sill panel trim using a hot air gun and carefully pull upward and off.
- Clean adhesion surface with mineral spirits, treat with silicone remover and rub dry.

- Door sill moldings must be affixed only at room temperature.
- For this purpose, bring vehicle and door sill moldings to room temperature at least 2 hours before processing.
- Protective moldings must be adhered within 90 minutes after protective foil has been removed.

- Heat adhesion surface to approx. 40°C using a hot air gun.

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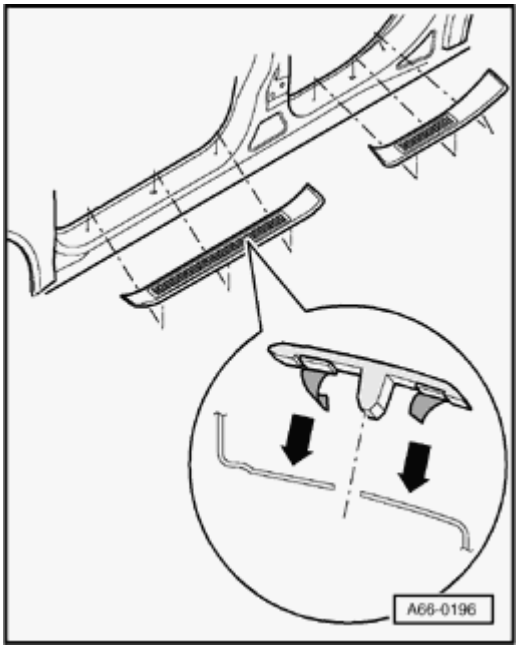


Fig. 325: Removing/Installing Door Sill Panel Trim
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull protective foil from double-sided adhesive tape shortly before installation.
- Clip in door sill molding and press on.

- After adhering strip, leave vehicle 4 hours in room temperature.

SILL PANEL COVER, REMOVING AND INSTALLING

Sill panel cover, removing and installing

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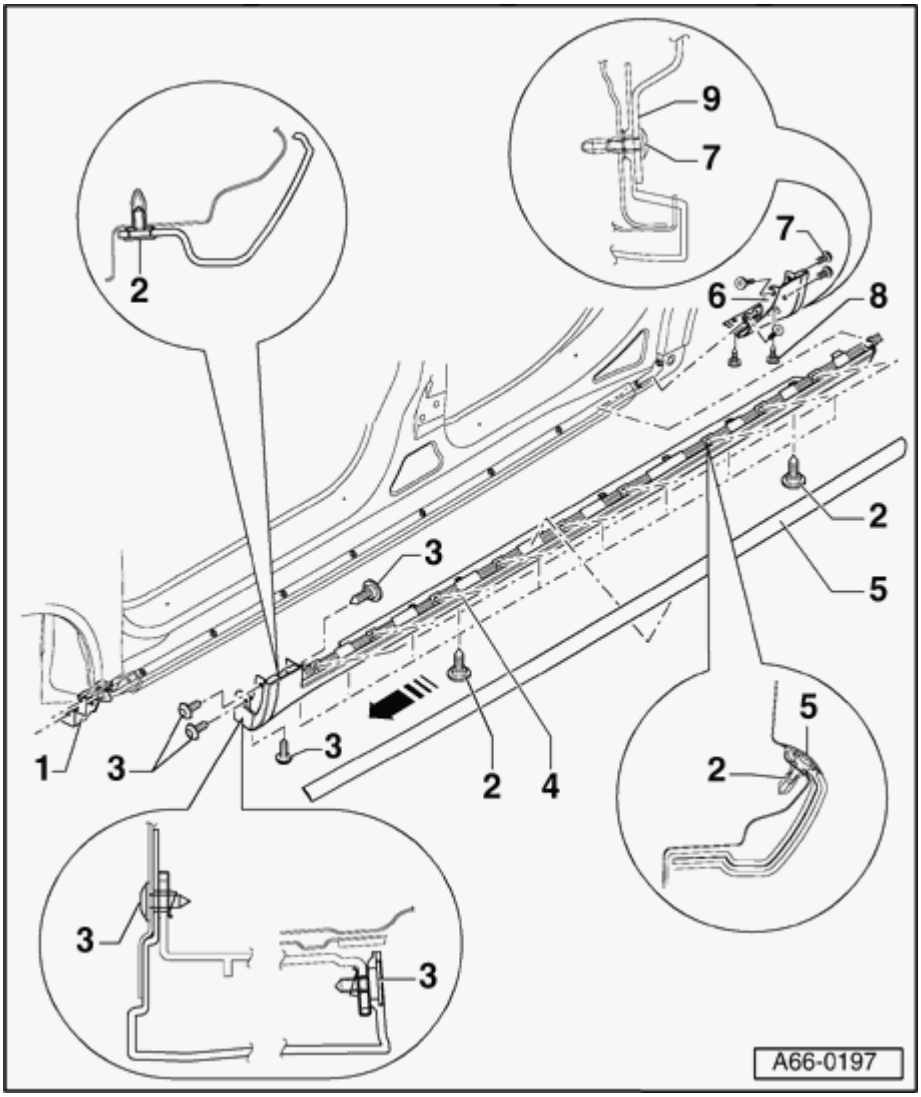


Fig. 326: Sill Panel Cover Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Bracket for sill panel cover

- Removing and installing **Removing bracket for sill panel cover**

2 - Bolt

- 1 Nm

3 - Bolt

- 2 Nm

4 - Sill panel cover

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- **Removing:**
- Then pull out of rear cover in - **direction of arrow** - and remove.
- **Installing:**
- Insert sill panel cover into rear cover.

- Then secure to bracket - **1** - **Removing bracket for sill panel cover**.
- Screw in bolts - **3** -.
- Screw in bolts - **2** -.

5 - Cover strip

6 - Rear sill panel cover

- Removing and installing **Rear sill panel cover**

7 - Bolt

- 2 Nm

8 - Bolt

- 1 Nm

9 - Wheelhousing liner

Removing bracket for sill panel cover

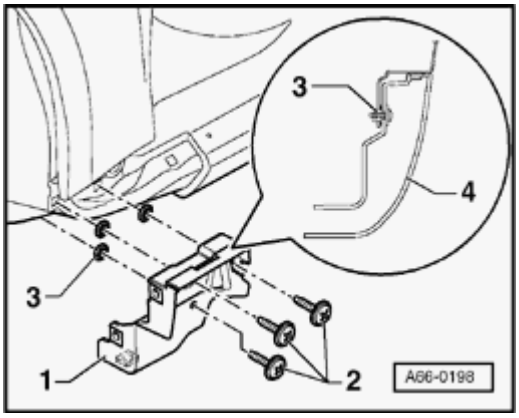


Fig. 327: Removing Bracket For Sill Panel Cover
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Sill panel cover removed.
- Remove bolts at wheelhousing liner.
- Remove bolts - **2** - and remove bracket - **1** -.

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- Expanding nut - **3** -.
- When installing, engage sill panel cover - **4** - completely into bracket - **1** -.

Rear sill panel cover

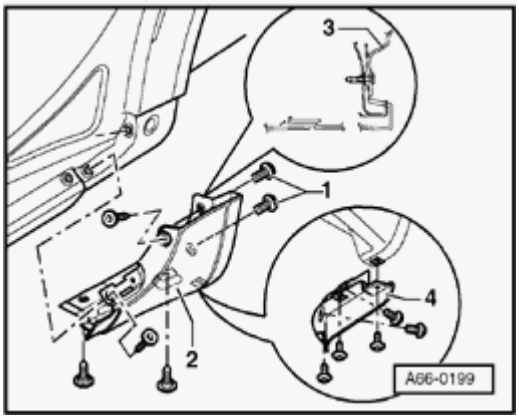


Fig. 328: Rear Sill Panel Cover
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Sill panel cover - **1** - removed.
- Remove bolts - **1** - and remove rear sill panel cover - **2** -.
- Wheelhousing liner - **5** -.
- Rear wheel spoiler - **4** -.

UNDERBODY COVERS

Underbody covers

Front underbody cover

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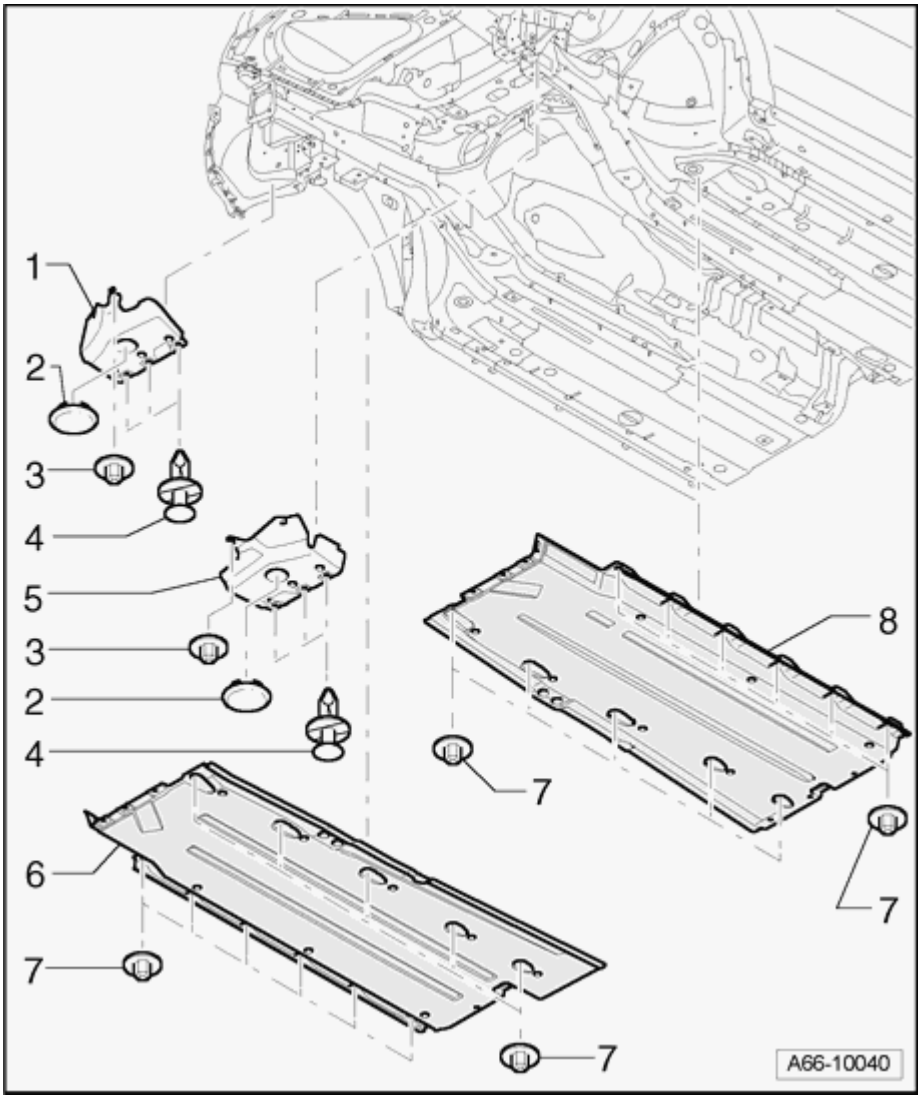


Fig. 329: Underbody Covers (Front Underbody Cover)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Cd cover, right, front

2 - Cap for Cd cover

3 - Hex nut

- 2.3 Nm

4 - Expanding rivet

5 - Cd cover, left, front

6 - Right underbody cover

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7 - Hex nut

- 2.3 Nm

8 - Left underbody cover

Rear underbody cover for Front Wheel Drive (FWD)

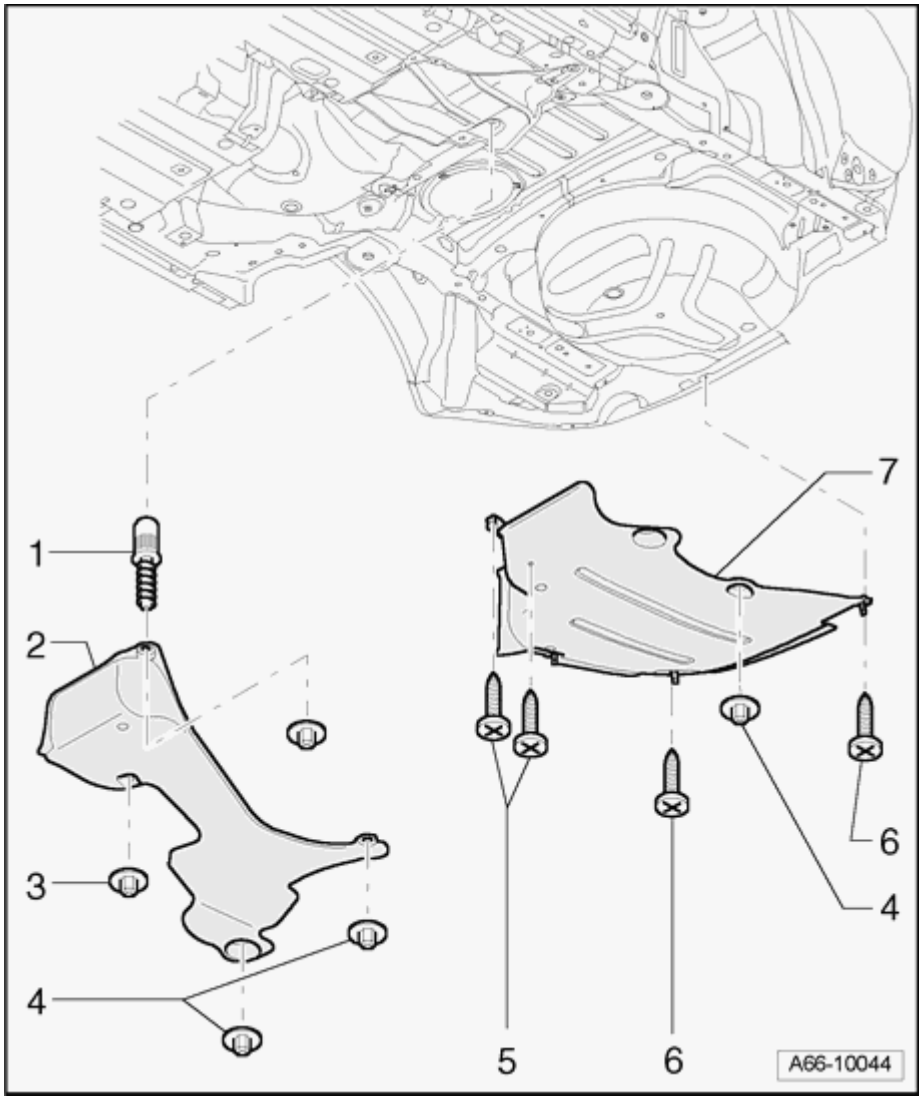


Fig. 330: Underbody Covers (Rear Underbody Cover For Front Wheel Drive (FWD))
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Blind rivet bolt

2 - Underbody cover for fuel tank

3 - Hex nut

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- 1.7 Nm

4 - Hex nut

- 2.3 Nm

5 - Sheet-metal screw

- 1.7 Nm

6 - Sheet-metal screw

- 1.7 Nm

7 - Underbody cover, left, rear

Rear underbody cover for All Wheel Drive (AWD)

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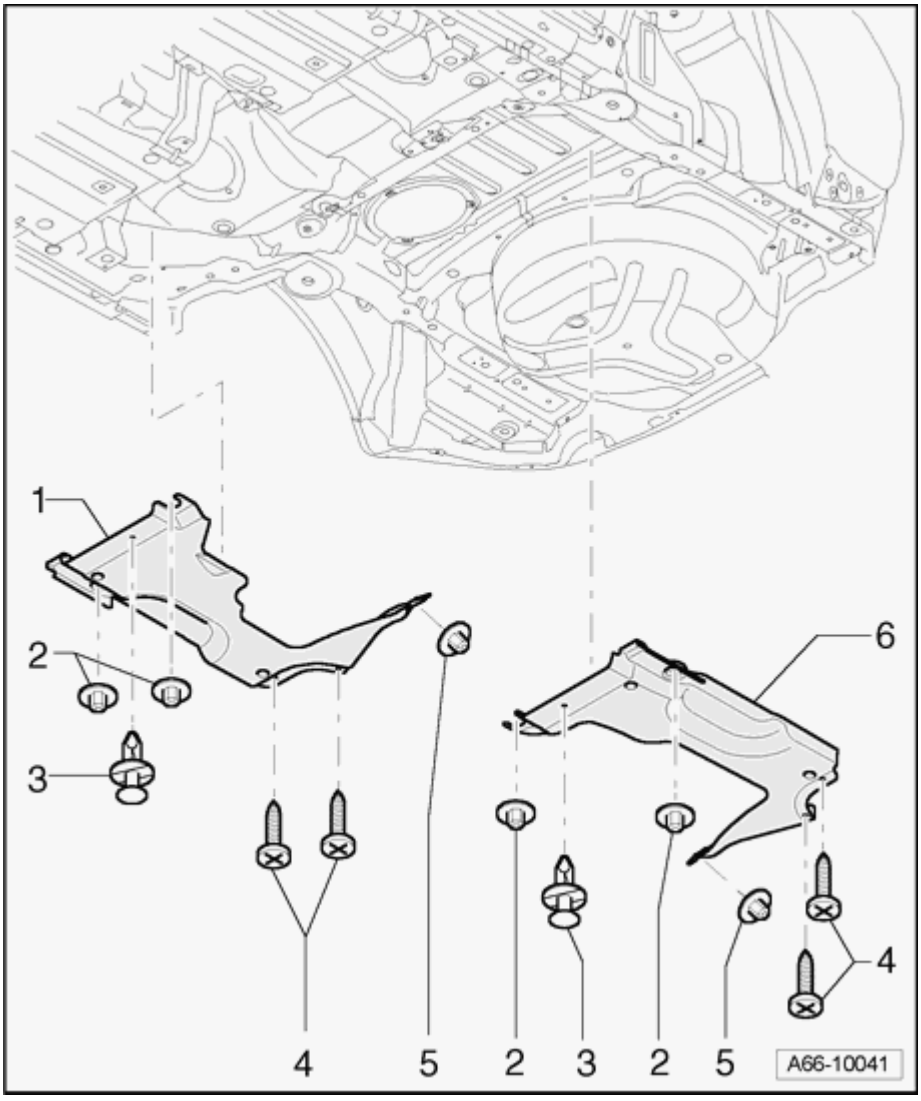


Fig. 331: Underbody Covers (Rear Underbody Cover For All Wheel Drive (AWD))
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Underbody cover for fuel tank

2 - Hex nut

- 2.3 Nm

3 - Expanding rivet

4 - Sheet-metal screw

5 - Spring nut

- 2.3 Nm

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6 - Underbody cover, left, rear

Underbody cover for rough terrain package

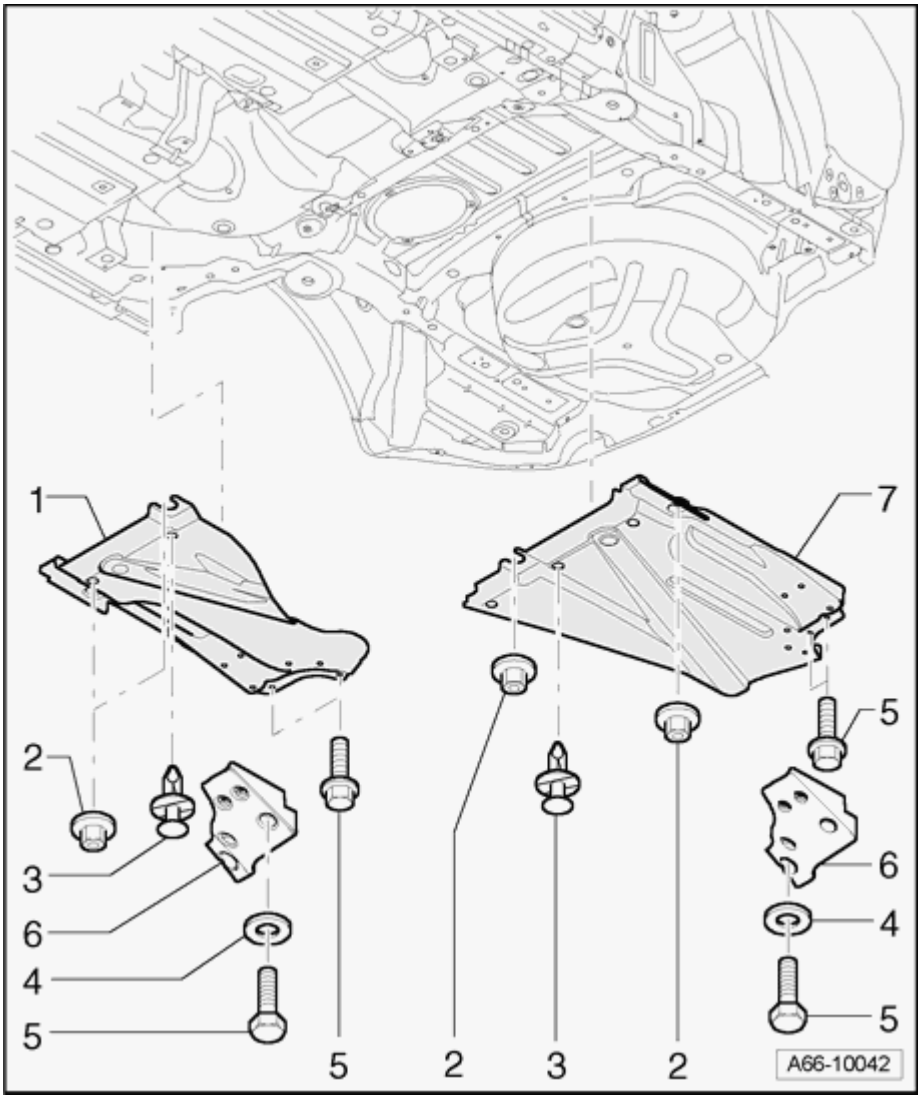


Fig. 332: Underbody Covers (Underbody Cover For Rough Terrain Package)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Underbody cover for fuel tank

2 - Hex nut

- 2.3 Nm

3 - Expanding rivet

4 - Washer

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5 - Hex bolt

- 5 Nm

6 - Stone impact protection plate

7 - Underbody cover, right, rear

Removing and installing tunnel brace

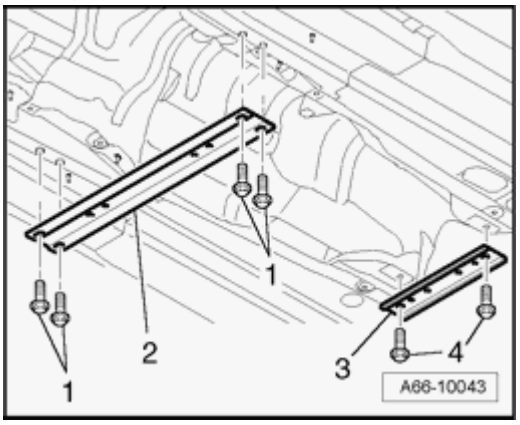


Fig. 333: Removing And Installing Tunnel Brace
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Underbody cover removed.
- Front tunnel brace - **2** -
- When installing, tighten hex bolts - **1** - to 55 Nm.
- Rear tunnel brace - **3** -
- When installing, tighten hex bolts - **4** - to 60Nm.

WHEELHOUSING LINER, REMOVING AND INSTALLING

Front wheelhousing liner

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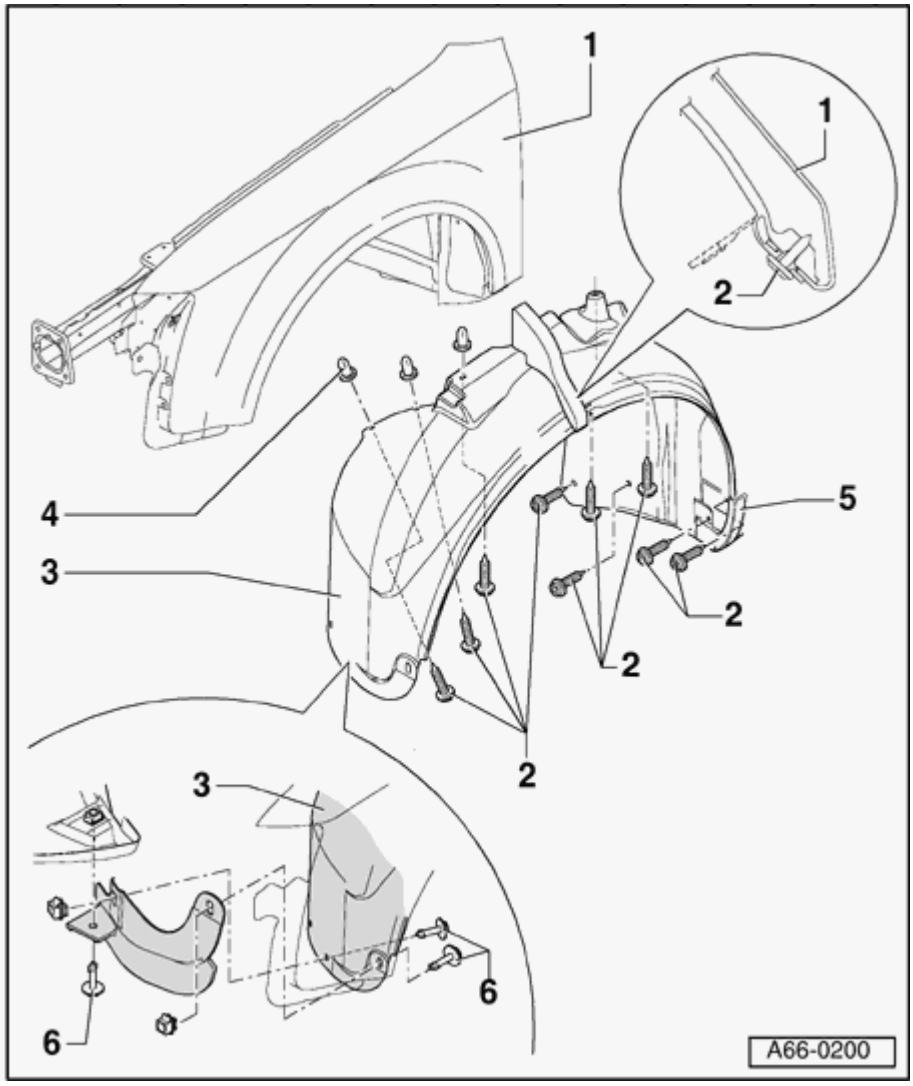


Fig. 334: Front Wheelhousing Liner Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Fender

2 - Bolt

- 2.3 Nm

3 - Front wheelhousing liner

- Remove front wheel before disassembly.
- To disassemble, release quick-release screws - **6** -.
- Unscrew bolts - **2** -.
- Disengage wheelhousing liner from fender and pull downward and out.

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4 - Expanding nut

5 - Sill panel cover

6 - Quick release screw

Rear wheelhousing liner

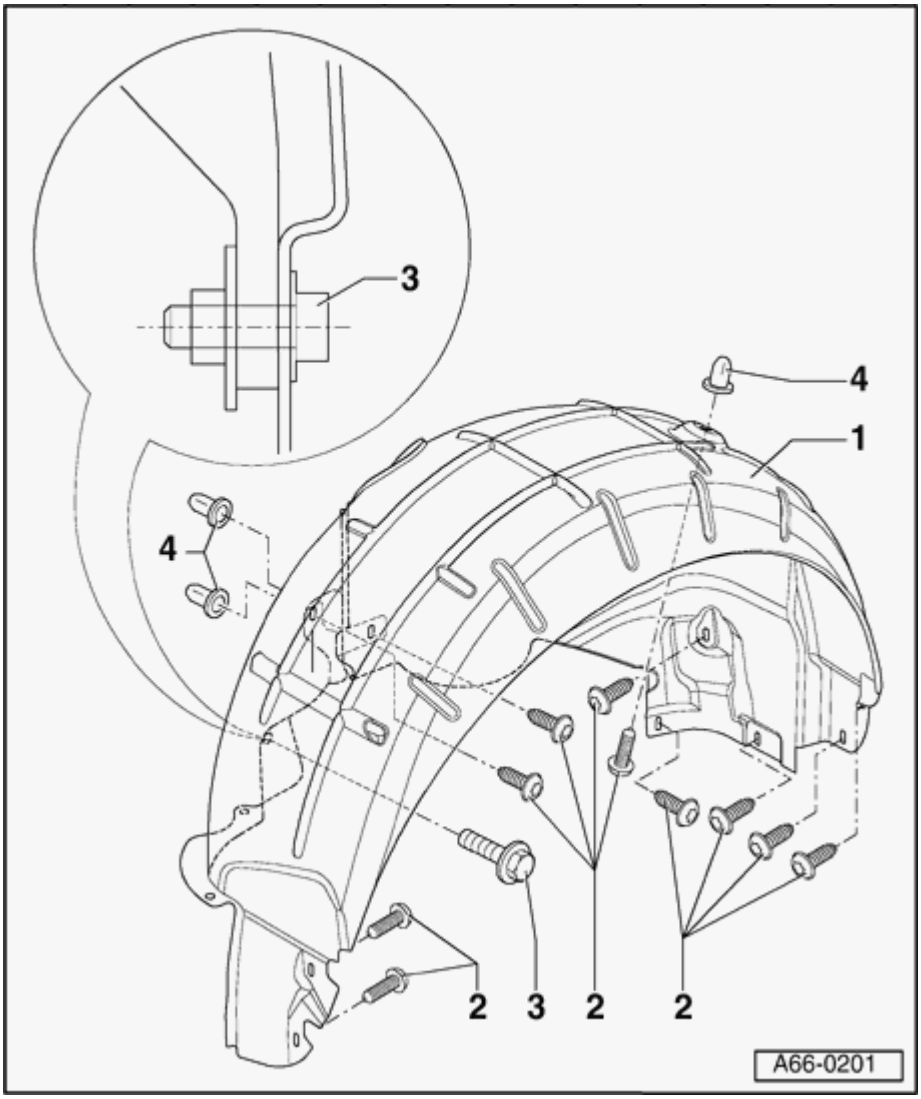


Fig. 335: Rear Wheelhousing Liner Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Rear wheelhousing liner

- Remove rear wheel before disassembly.
- Unscrew bolts - **2** -.
- Remove wheelhousing liner downward.

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2 - Bolt

- 1.5 Nm

3 - Combination bolt

- Inserted only on the right side of vehicle.

4 - Expanding nut

Wheel spoiler

Front wheel spoiler, removing and installing

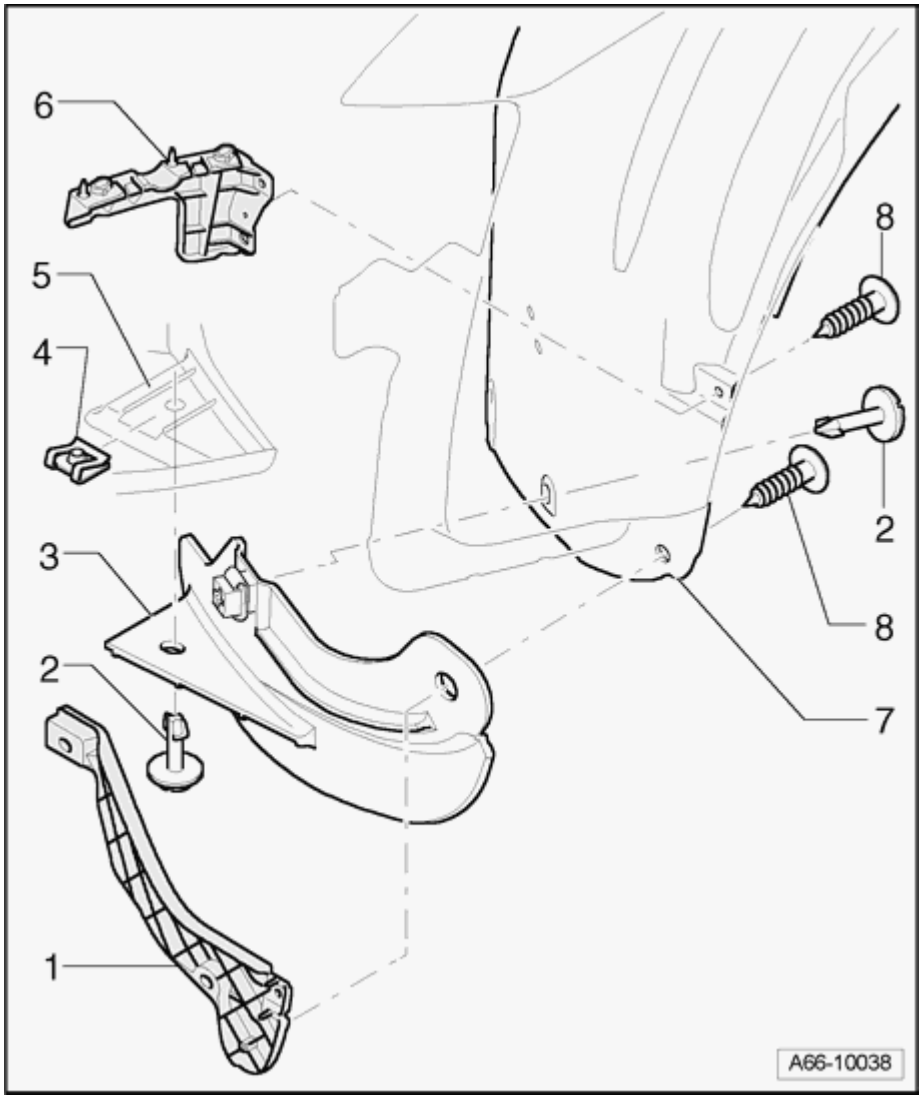


Fig. 336: Front Wheel Spoiler Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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1 - Brace for fender

2 - Clamping pin

- To loosen, rotate 180°.

3 - Front wheel spoiler

- To remove, remove bolts - **8** - , rotate clamping pins 180°, pull out and pull out wheel spoiler under wheelhousing liner - **7** -.

4 - Speed nut

- Slid onto noise insulation

5 - Noise insulation

6 - Guide piece for bumper

- Secured to fender

7 - Front wheelhousing liner

8 - Sheet-metal screw

- 1.5 Nm

Rear wheel spoiler, removing and installing

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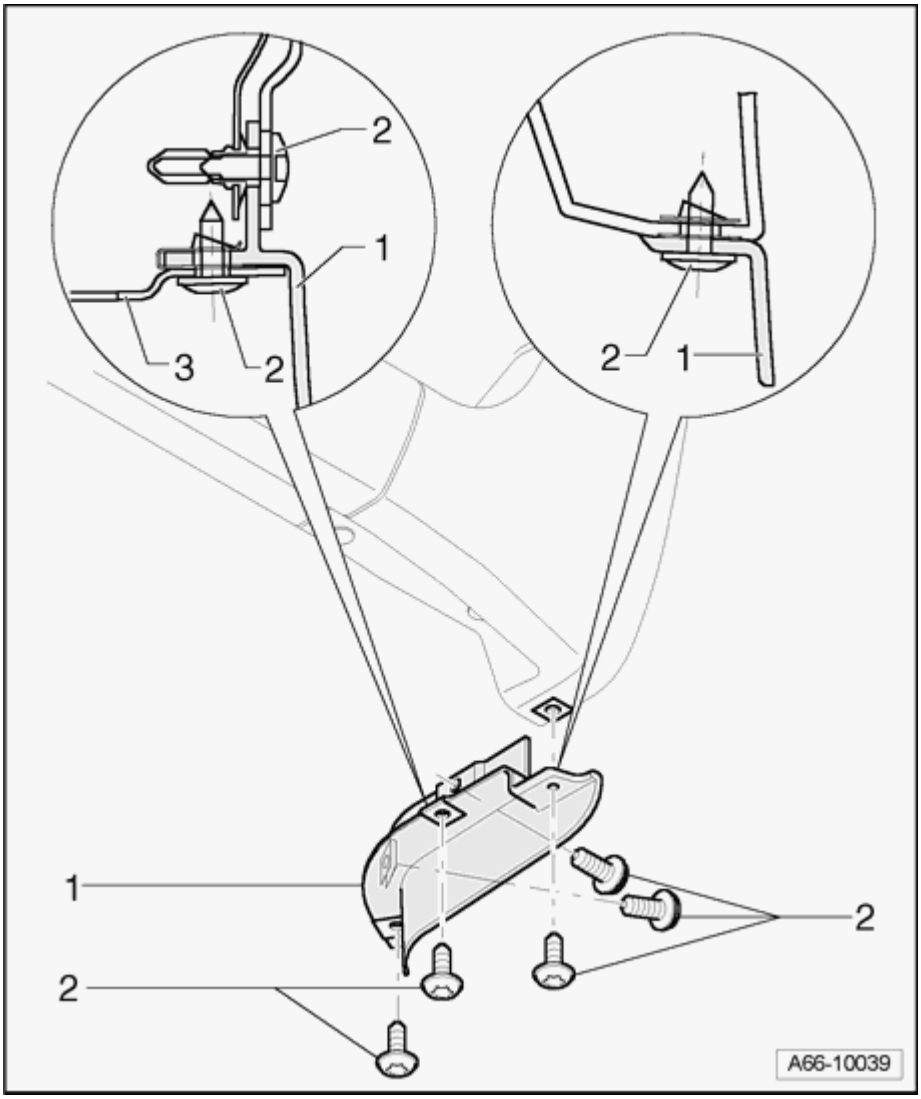


Fig. 337: Rear Wheel Spoiler Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Rear wheel spoiler

- Remove bolts - **2** - completely and pull out wheel spoiler downward under wheelhousing liner/underbody cover.

2 - Combination bolt

- 2Nm

3 - Front underbody cover

ORNAMENTAL PARTS

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Lettering on rear lid (Sedan)

NOTE:

- **Outer edges of rear lid and lines extending from lower rear lights are used as reference edges.**

Installation:

- Warm vehicle and type designation to room temperature.
- Bonding surfaces must be dry and free from dust and grease.
- Clean outer panel with mineral spirits, treat with silicone remover and rub dry.
- Pull off backing paper and press on characters - **1** - , maintaining pressure for approx. 3 seconds.

Dimensional data for Front-Wheel Drive (FWD) vehicles

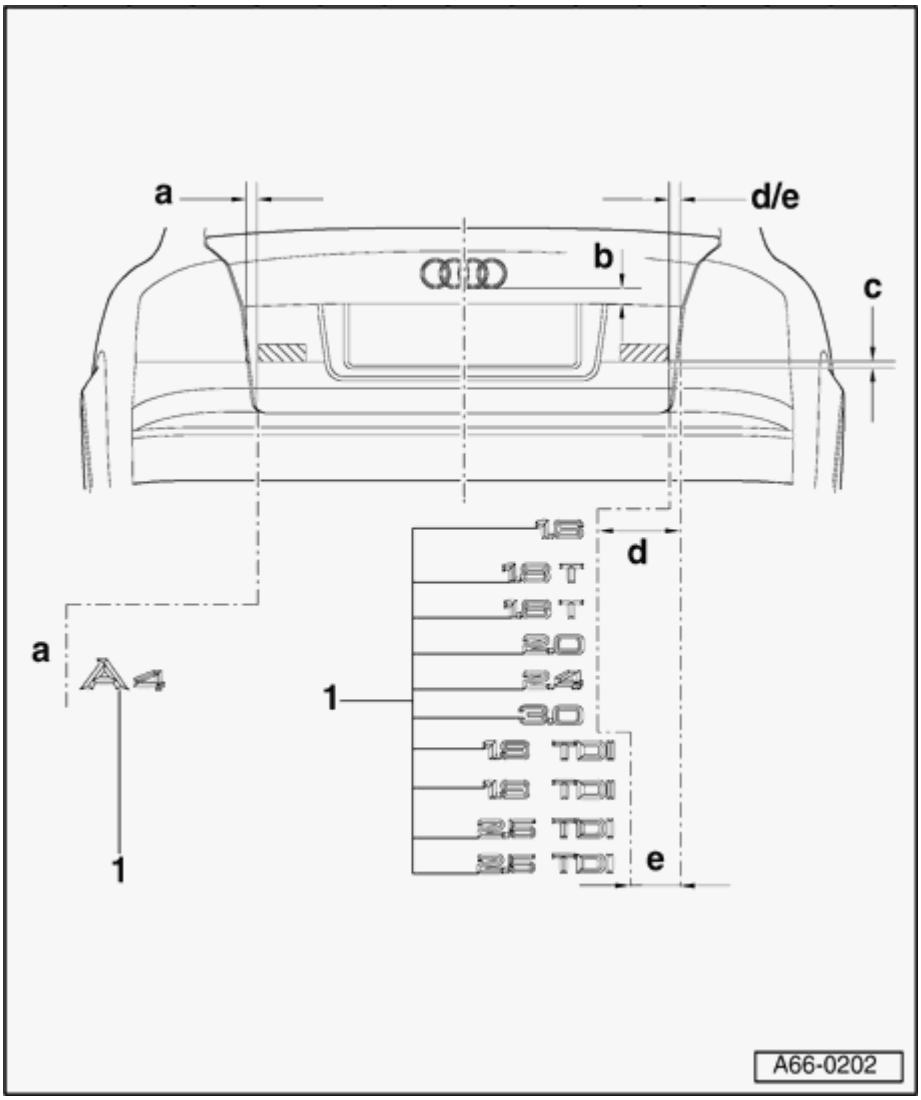


Fig. 338: Dimensional Data For Front-Wheel Drive (FWD) Vehicles

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

- a = 23 mm.
- b = 28 mm
- c = 2 mm
- d = 28 mm
- e = 11 mm

Dimensional data for All Wheel Drive (AWD) vehicles

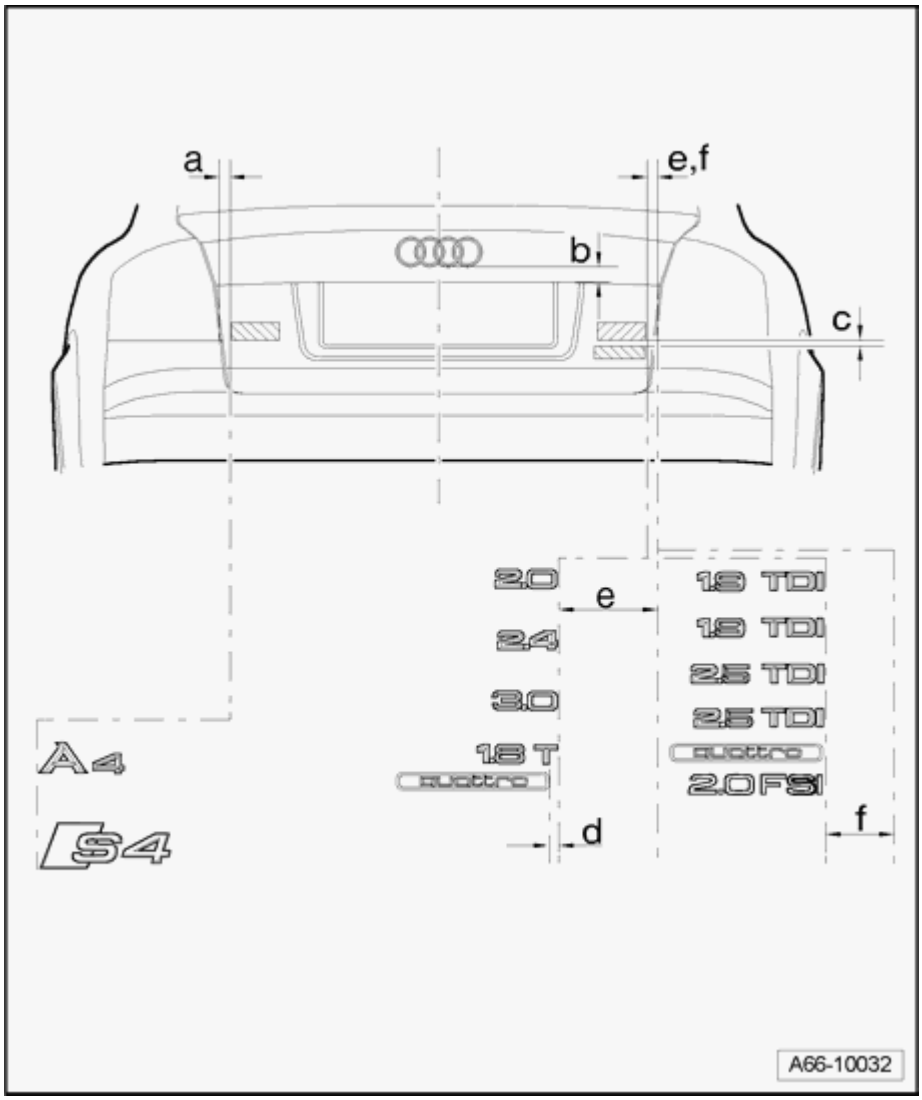


Fig. 339: Dimensional Data For All Wheel Drive (AWD) Vehicles
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- a = 23 mm.

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- b = 28 mm
- c = 4 mm
- d = 12.5 mm

- e = 28 mm
- f = 0.11 mm

Lettering on rear lid (Avant)

NOTE:

- **Outer edges of rear lid and lines extending from lower rear lights are used as reference edges.**

Installation:

- Warm vehicle and type designation to room temperature.
- Bonding surfaces must be dry and free from dust and grease.
- Clean outer panel with mineral spirits, treat with silicone remover and rub dry.
- Pull off backing paper and press on characters **- 1 -** , maintaining pressure for approx. 3 seconds.

Dimensional data for Front-Wheel Drive (FWD) vehicles

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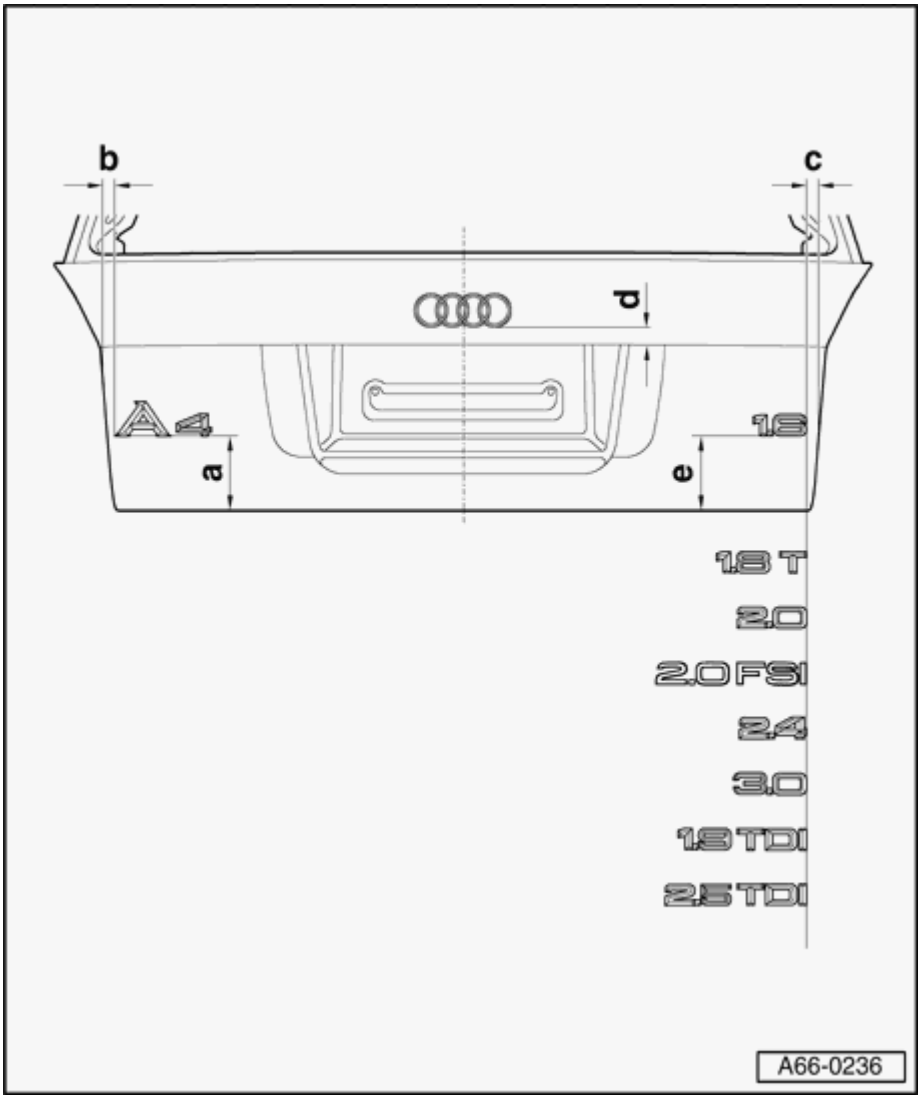


Fig. 340: Dimensional Data For Front-Wheel Drive (FWD) Vehicles
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- a = 95 mm
- b = 33 mm
- c = 38 mm
- d = 28 mm
- e = 95 mm

Dimensional data for All Wheel Drive (AWD) vehicles

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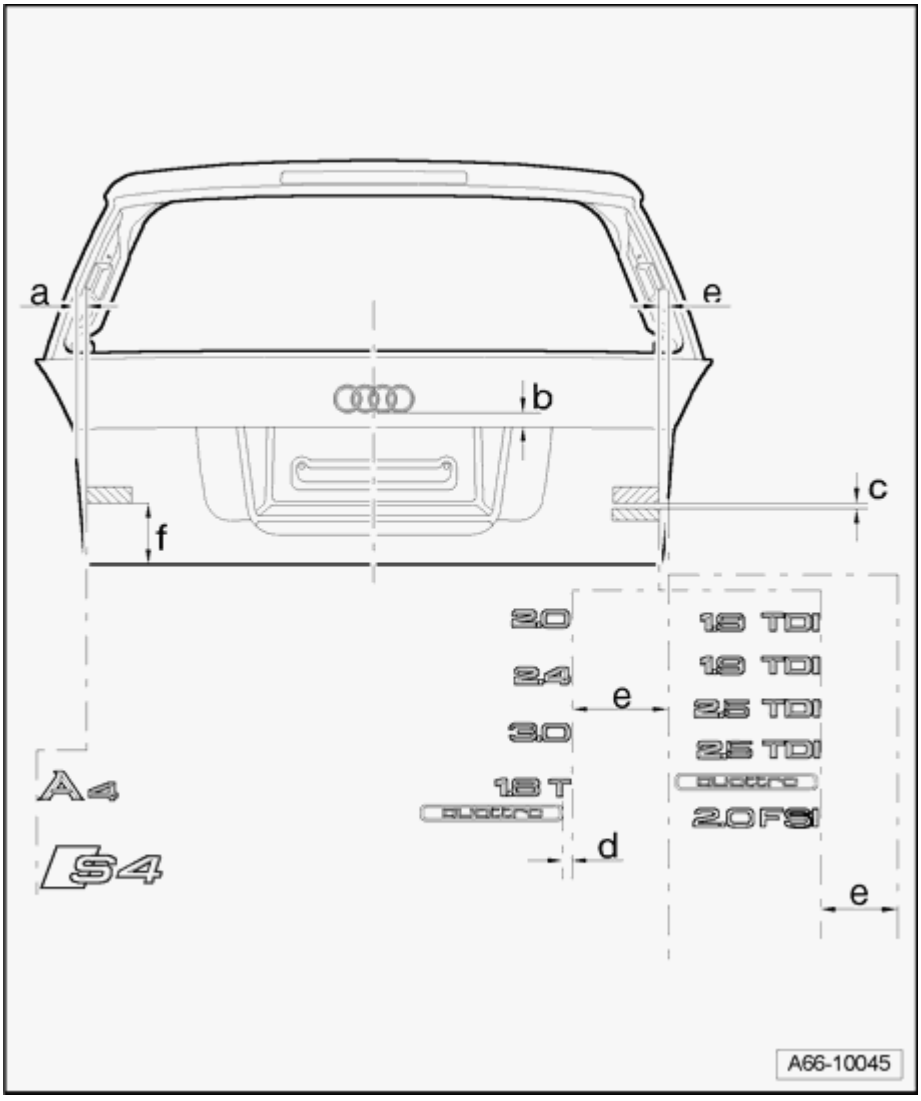


Fig. 341: Dimensional Data For All Wheel Drive (AWD) Vehicles
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- a = 33 mm
- b = 28 mm
- c = 4 mm
- d = 12.5 mm
- e = 38 mm
- f = 95 mm

ORNAMENTAL PARTS, AS OF VEHICLE IDENTIFICATION NUMBER (VIN) 400 001

Lettering on rear lid (Sedan)

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NOTE:

- **Lower edge of rear lid is used as a reference edge, outer edge at crossover point for the corresponding height dimension.**

Installation:

- Warm vehicle and type designation to room temperature.
- Bonding surfaces must be dry and free from dust and grease.
- Clean outer panel with mineral spirits, treat with silicone remover and rub dry.
- Pull off backing paper and press on characters - **1** - , maintaining pressure for approx. 3 seconds.

Dimensional data for Front-Wheel Drive (FWD) vehicles

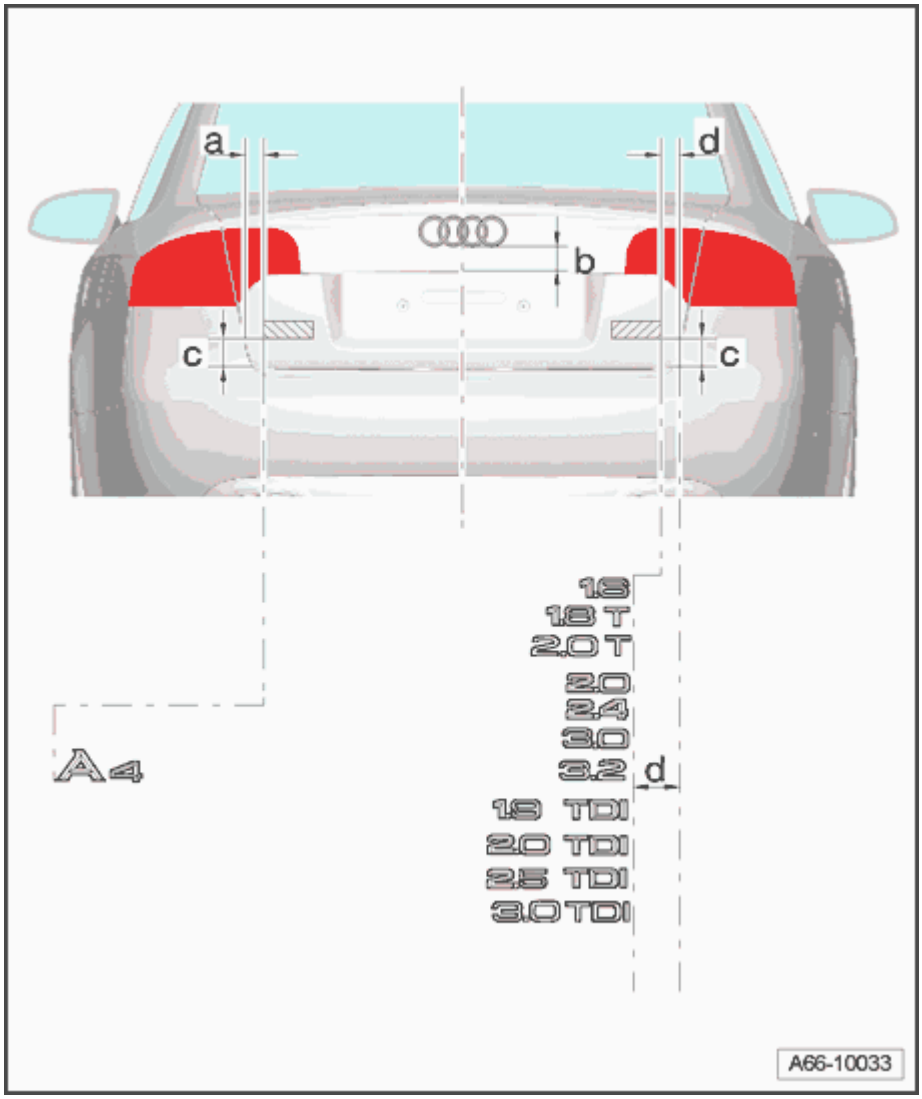


Fig. 342: Dimensional Data For Front-Wheel Drive (FWD) Vehicles
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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- a = 25 mm
- b = 30 mm
- c = 63 mm
- d = 25 mm

Dimensional data for All Wheel Drive (AWD) vehicles

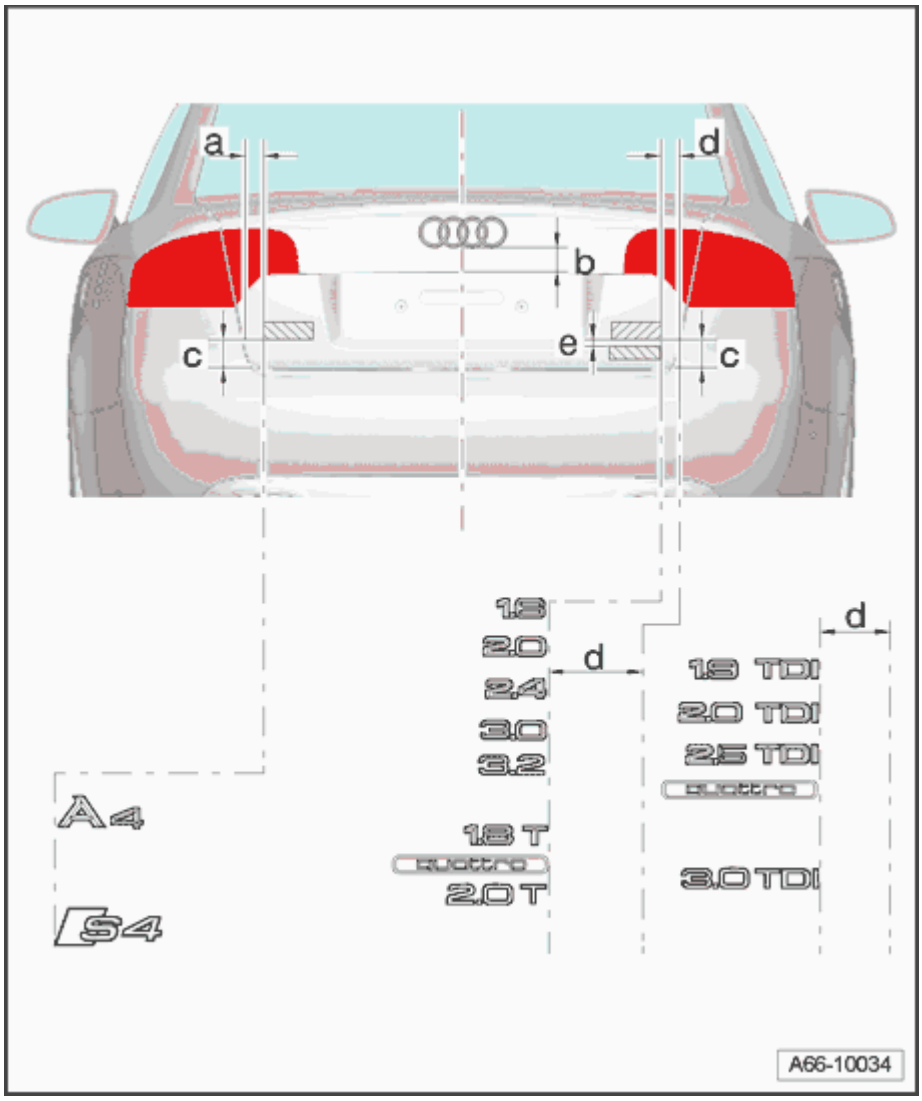


Fig. 343: Dimensional Data For All Wheel Drive (AWD) Vehicles
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- a = 25 mm
- b = 30 mm
- c = 63 mm
- d = 25 mm

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- e = 4 mm

Lettering on rear lid (Avant)

Dimensional data for Front-Wheel Drive (FWD) vehicles

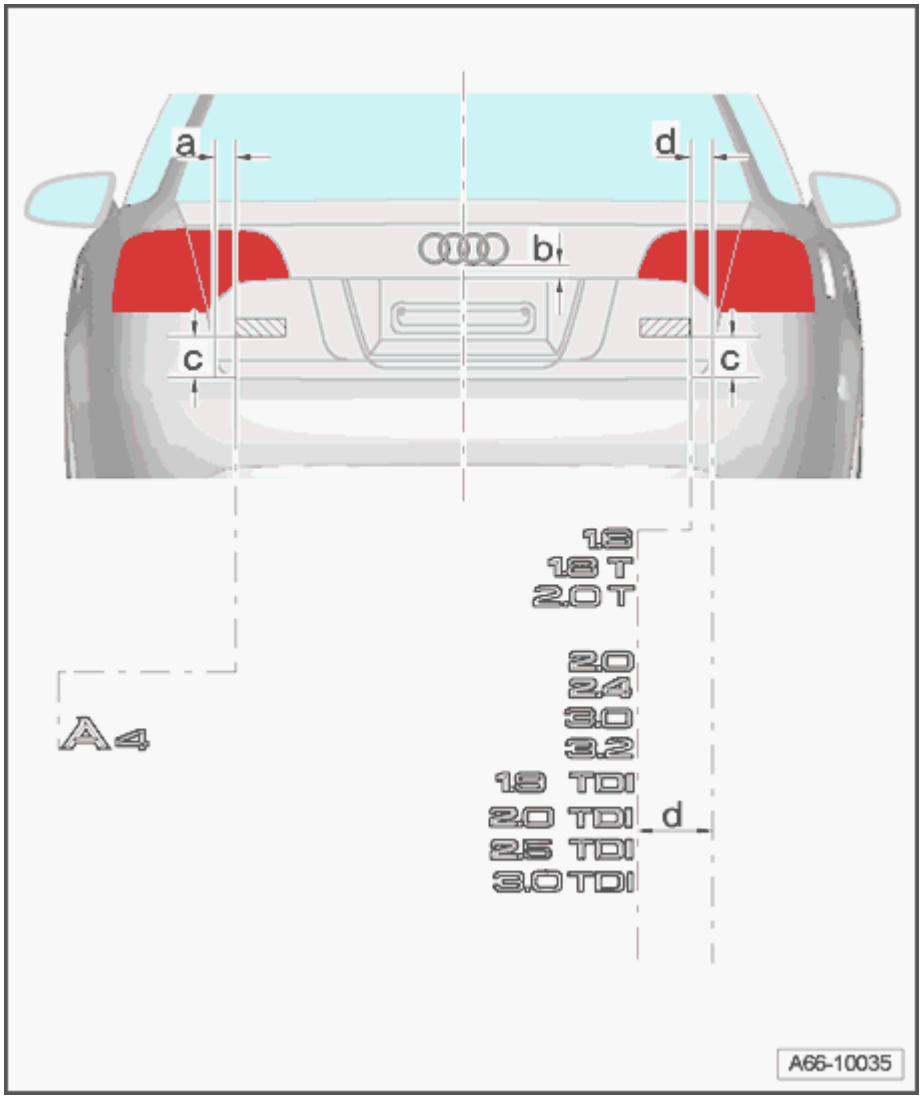


Fig. 344: Dimensional Data For Front-Wheel Drive (FWD) Vehicles
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- a = 50 mm
- b = 30 mm
- c = 65 mm
- d = 50 mm

Dimensional data for All Wheel Drive (AWD) vehicles

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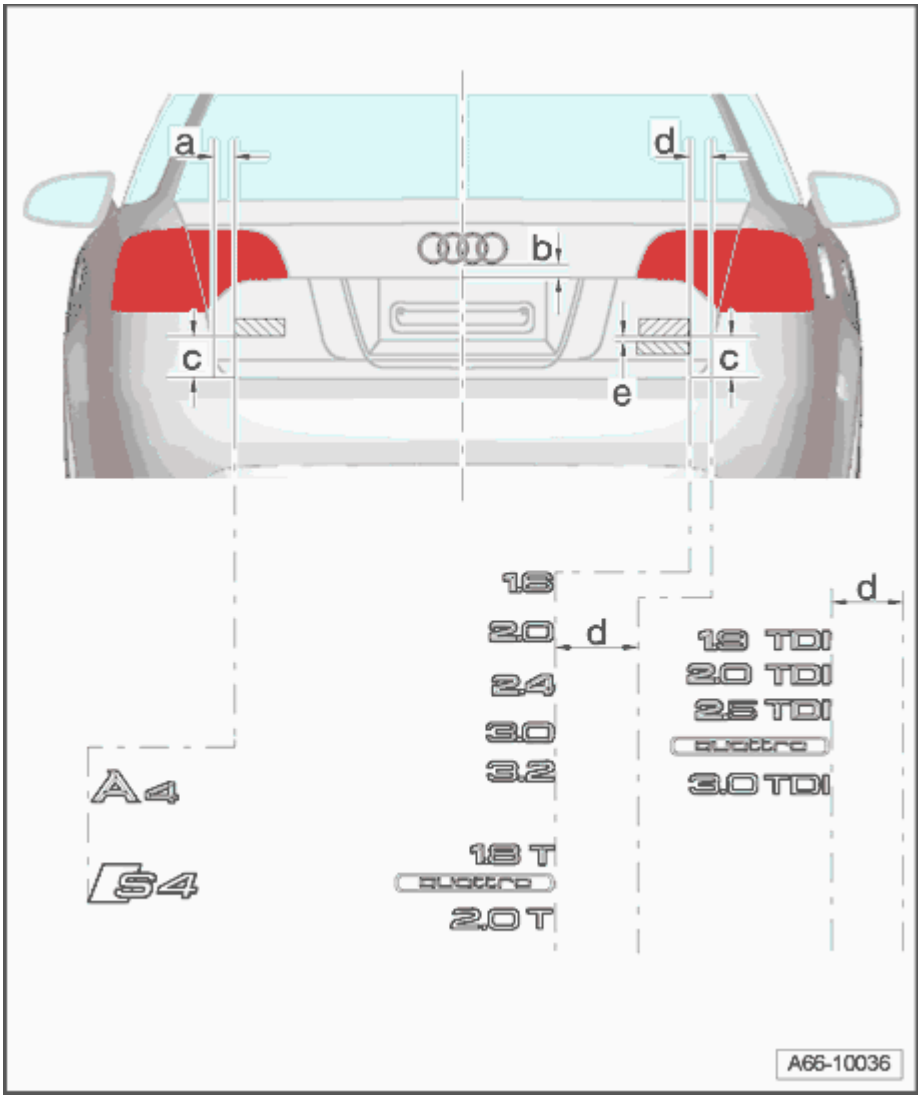


Fig. 345: Dimensional Data For All Wheel Drive (AWD) Vehicles
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- a = 50 mm
- b = 30 mm
- c = 65 mm
- d = 50 mm
- e = 4 mm

REAR LID SPOILER, REMOVING AND INSTALLING

Rear lid spoiler, removing and installing

Special tools, testers and auxiliary items required

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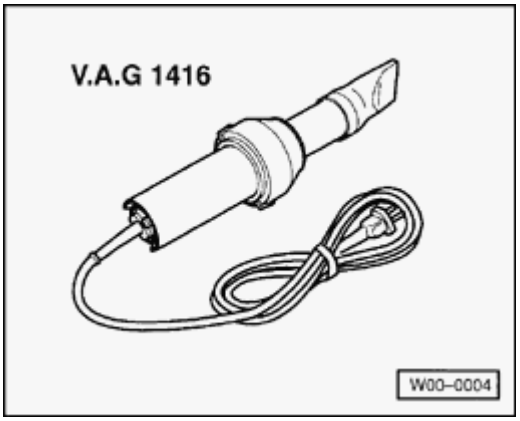


Fig. 346: Identifying Heat Gun V.A.G 1416
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Heat gun V.A.G 1416

S4 sedan

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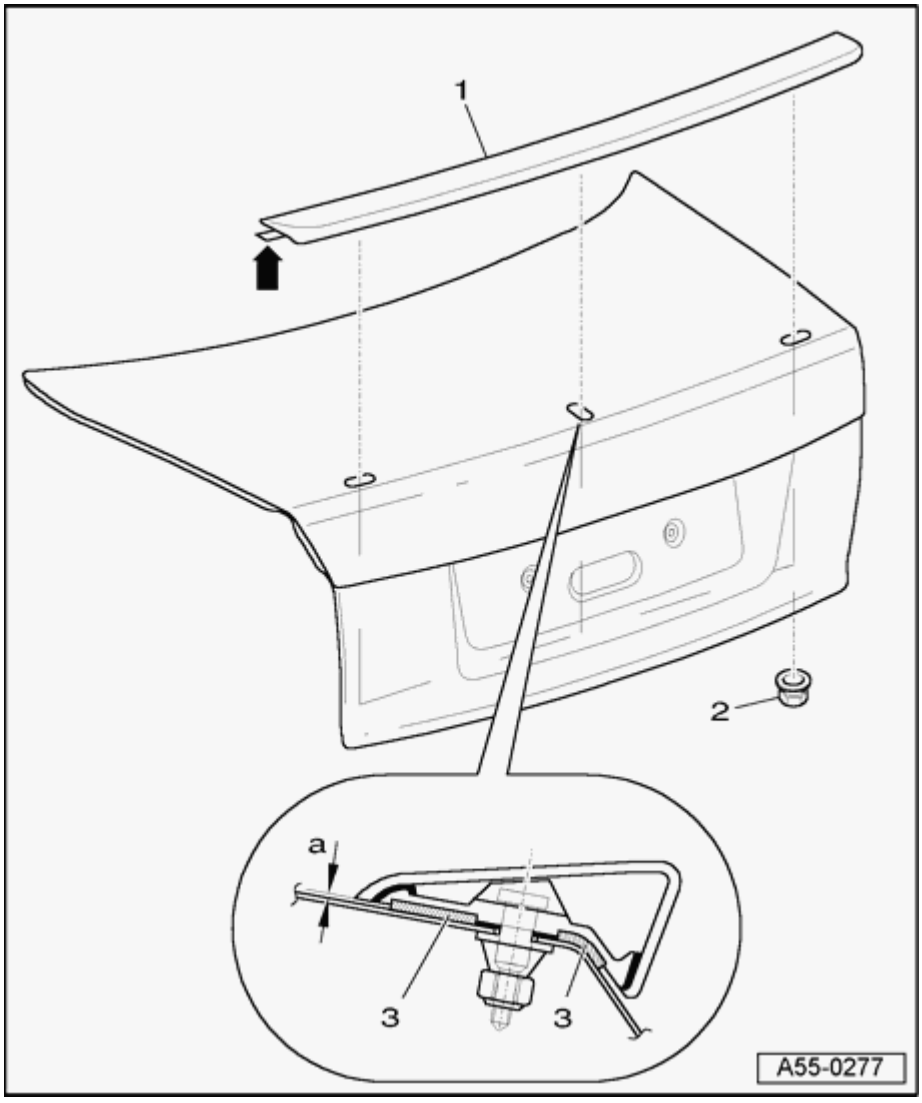


Fig. 347: Rear Lid Spoiler - Assembly Overview S4 Sedan
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Rear lid spoiler

Removing

- Before removing spoiler, remove rear lid trim.
- Remove nuts - **2** -.
- Heat rear lid from inside using a hot air gun.
- Carefully pull off spoiler from rear lid, beginning at sides.
- Remove remaining adhesive tape from rear lid.

Installation:

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- Rear lid must be free of dust and grease in adhesion area
- Clean adhesion area of rear lid with cleaning solution D 009 401 04.
- Before installing a new spoiler, pull backing paper - **arrow** - from adhesive tape.
- Place spoiler onto rear lid, centered and in flush position.
- Press spoiler firmly over entire length onto rear lid.
- Tighten nuts - **2** - to 2 Nm.

- Before reinstalling spoiler, remove remaining adhesive tape completely.
- Before installing, adhesive tape - **3** - must be applied all around and sealing washers around threaded pins in spoiler as shown in **Apply adhesive tape on spoiler**.

2 - Cap nut

- 2Nm

3 - Adhesive tape

- If a removed spoiler is to be reinstalled, first apply adhesive tape and sealing pieces for threaded pins in spoiler **Apply adhesive tape on spoiler**.
- Adhesive tape residue must be removed from spoiler before reinstalling.
-

Removing spoiler

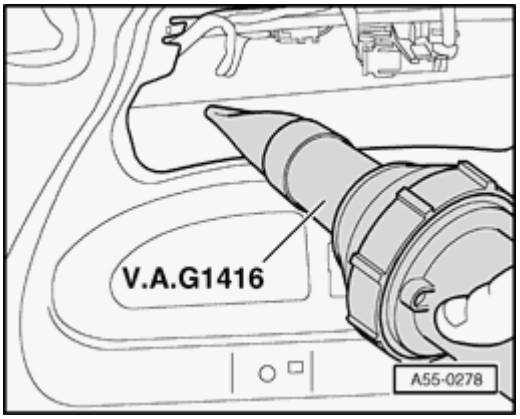


Fig. 348: Heating Rear Lid In Adhesion Area For Spoiler Using Hot Air Gun V.A.G 1416
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Heat rear lid in adhesion area for spoiler using hot air gun V.A.G 1416.
- Carefully pull off spoiler upward from rear lid, beginning at sides.
- If spoiler is re-used, adhesive tape residue must be removed completely.

Apply adhesive tape on spoiler

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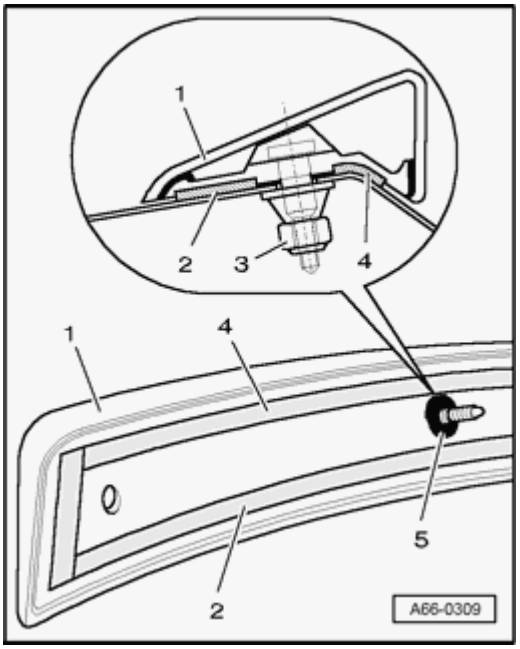


Fig. 349: Apply Adhesive Tape On Spoiler
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull off backing paper from sealing pieces - **5** - and press seal over thread onto spoiler - **1** -.
- Pull off backing paper on one side from adhesive tape - **2** - or - **4** -.
- Press adhesive tape along circumference on spoiler as shown.
- In rear area, adhesive tape - **4** - must be pressed on in radius.

- Tighten nuts to 2 Nm when installing.

S-Line Avant

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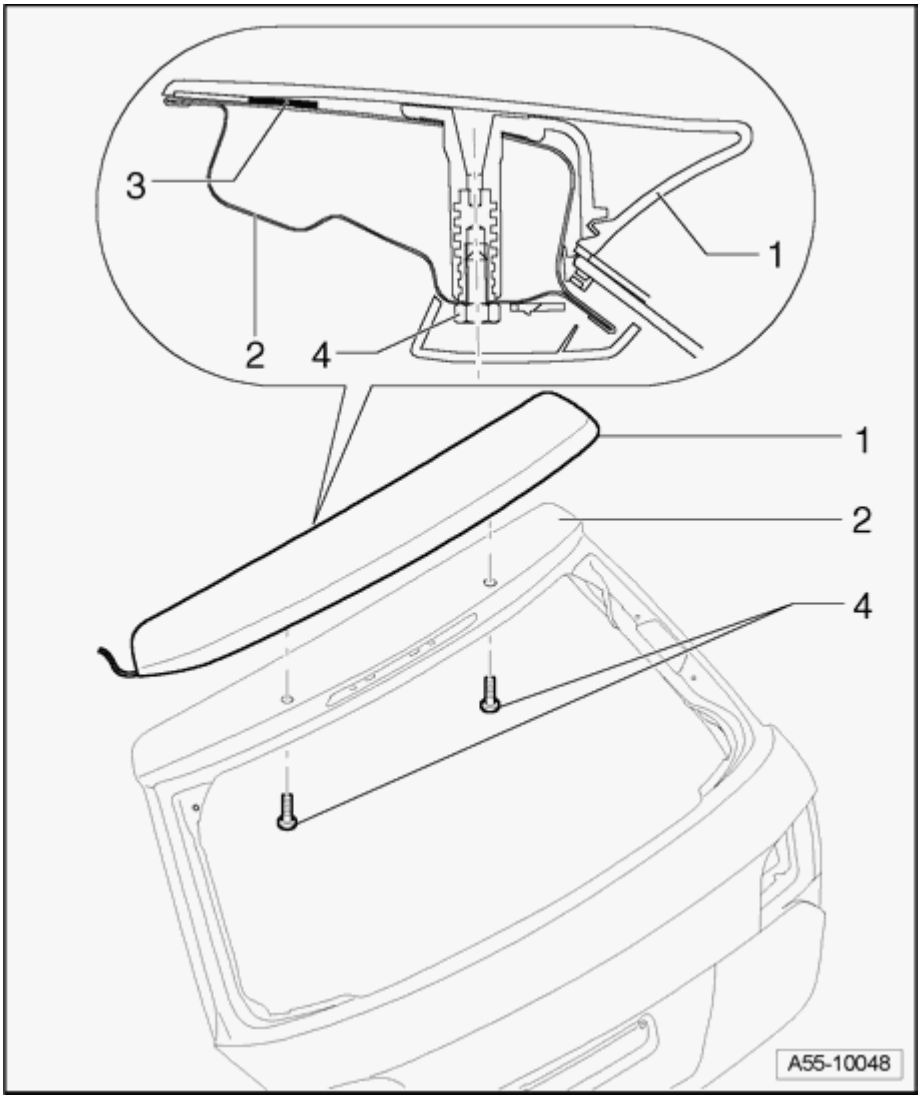


Fig. 350: Removing/Installing Rear Lid Spoiler - S-Line Avant
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Spoiler

- Remove rear lid trim before removing

  - Remove bolts - **4** -.
  - Heat adhesion area on lid using hot air gun V.A.G 1416.

- Pull spoiler from lid upward and off.
- Before assembling a spoiler, clean adhesion area on lid with cleaning solution D 009 401 04.
- Pull off backing paper from double-sided adhesive tape.
- Place spoiler over holes onto closed lid.

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- Press on spoiler forcefully, starting at center and working outward over entire width.
- Open lid and tighten bolts to 4 Nm.

2 - Rear lid

- Lid must be free of dust and grease in adhesion area.
- Before assembling a spoiler, clean adhesion area on lid with cleaning solution D 009 401 04.

3 - Adhesive tape

- Remove protective paper before applying.

4 - Combination bolt

- 4 Nm

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50 BODY, FRONT

BODY, FRONT

Lock carrier, service position

NOTE:

- **Do not remove noise insulation, only loosen front quick release screws --> Noise insulation panel - assembly overview.**
- **Bumper removed.**

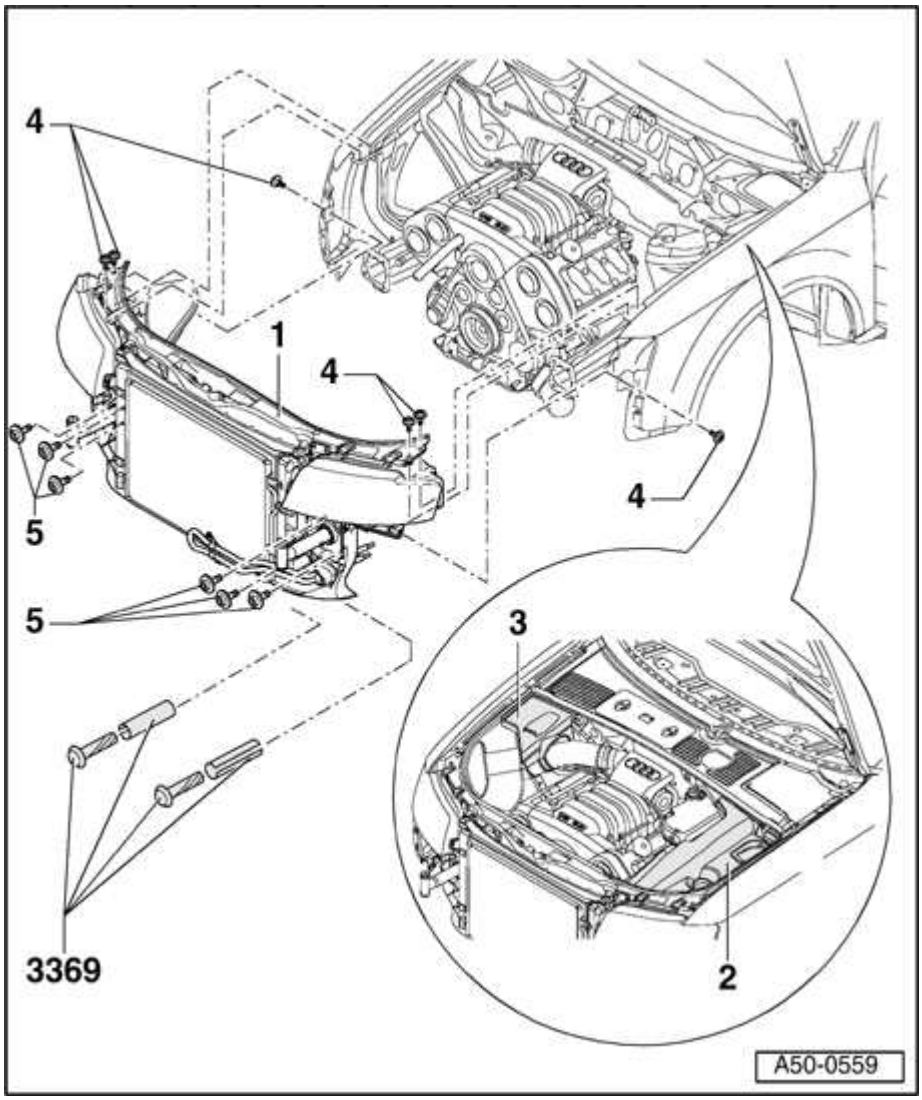


Fig. 1: Lock Carrier Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Lock carrier

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- Service position
- Unscrew intake air duct between lock carrier and air cleaner housing at lock carrier and remove.
- On the left side, screw in special tool 3369 in threaded hole **Screw in special tool 3369**
- On the right side, screw in special tool 3369.

- Unscrew mounting bolts - **5** - at left and right.
- Unscrew mounting bolts - **4** - and pull lock carrier - **1** - toward front.
- Secure lock carrier **Secure lock carrier**.

2 - Left engine cover

3 - Right engine cover

4 - Combination bolt

- 10 Nm

5 - Combination bolt

- 50 Nm
- For service position, screw in special tool 3369.

NOTE:

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

Screw in special tool 3369

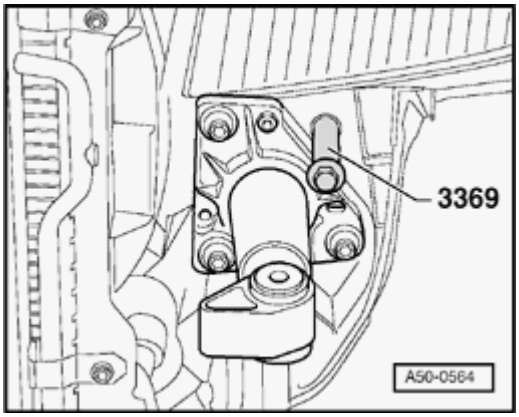


Fig. 2: Screw In Special Tool 3369
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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

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Secure lock carrier

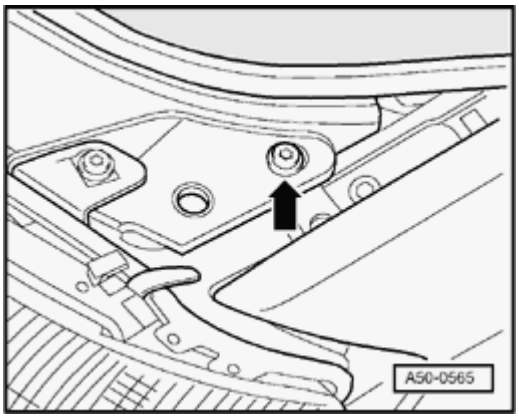


Fig. 3: Secure Lock Carrier
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Secure lock carrier at left and right with bolts.

Lock carrier with attachments, removing and installing

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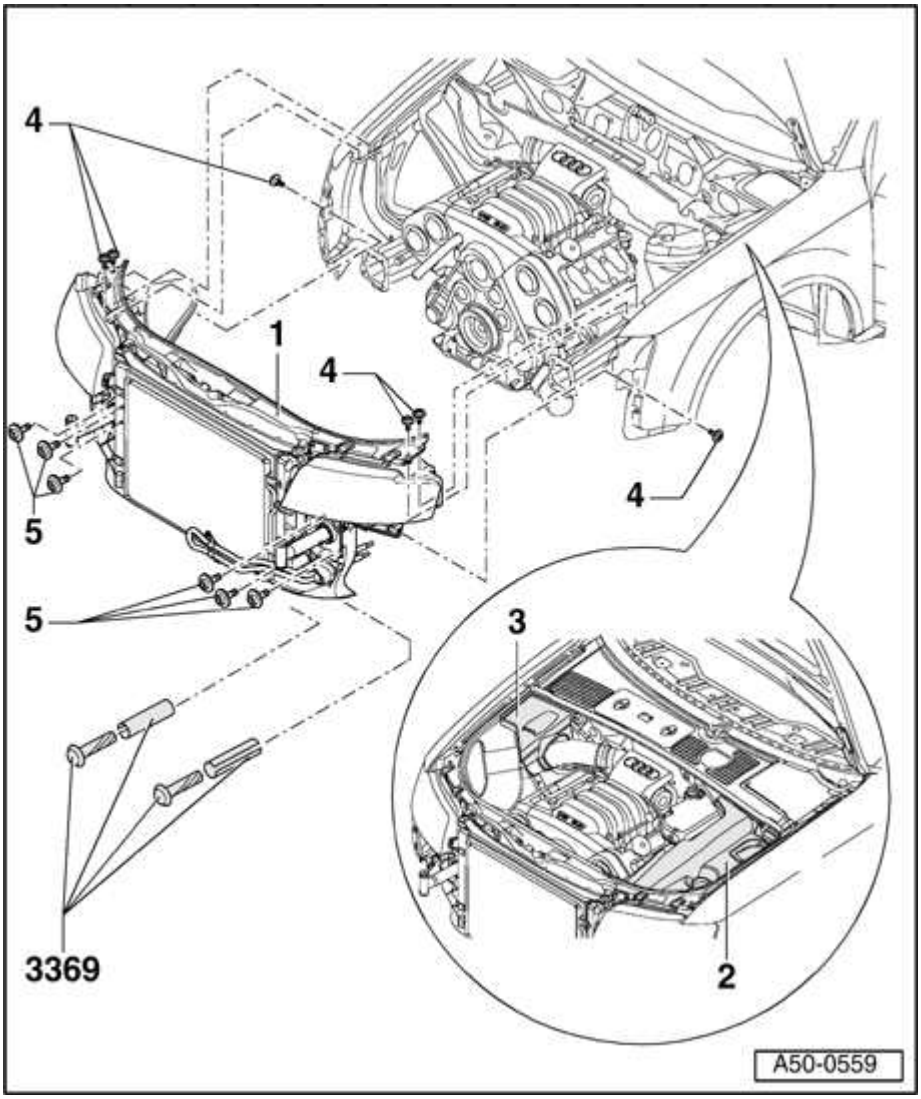


Fig. 4: Lock Carrier Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Lock carrier

- **Removing:**
- Remove bumper --> **Front bumper, removing and installing**.
- Remove noise insulation --> **Noise insulation panel - assembly overview**.
- Disengage Bowden cable for hood lock --> **Hood lock cable, removing and installing**.

- Remove engine cover - **2** - and - **3** -.
- Remove intake air duct between lock carrier and air cleaner housing at lock carrier.
- Disconnect electrical connectors.
- Drain engine coolant and disconnect coolant pipes **Disconnect upper coolant hose** and **Disconnect lower coolant hose**.

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- Remove condenser from water cooler only (do not disconnect lines)
- Secure A/C system condenser using wire e.g. to front wheel. Refer to **87 AIR CONDITIONING**

NOTE:

- **Do not hang condenser on lines. Condenser lines should not be pinched under any circumstances.**
- **Disconnect hoses to hydraulic oil cooler.**
- **Remove hydraulic oil cooler --> Disconnect hydraulic oil cooler, 48 - STEERING**

NOTE:

- **Hydraulic oil cooler line should not be pinched under any circumstances.**
- **For cars with automatic transmission, disconnect lines to ATF-cooler. Refer to**
  - **37 - AUTOMATIC TRANSMISSION - CONTROLS, HOUSING for 5 SPD. AUTOMATIC TRANSMISSION 01V**
  - **37 CONTROLS, HOUSING for 6 SPD. AUTOMATIC TRANSMISSION 09L ALL WHEEL DRIVE**
  - **37 - AUTOMATIC TRANSMISSION - CONTROLS, HOUSING for CONTINUOUSLY VARIABLE TRANSMISSION (CVT) 01J**
- **On vehicles with an intercooler, remove air conduction hose.**
- **Remove gasket for left and right front flap at juncture of fender at lock carrier - 1 -.**
- **Unscrew bolts - 5 -.**
- **A second mechanic is needed to hold the lock carrier - 1 -.**
- **Unscrew bolts - 4 -.**
- **Pull lock carrier toward front.**
- **Installation:**
- **Reverse order of removal.**
- **Headlights must be adjusted anew.**
- **Adjusting:**
- **Lock carrier - 1 - must be aligned between the fenders.**
- **If the fenders and the front flap are also to be changed, then adjust these to each other first.**

2 - Left engine cover

3 - Right engine cover

4 - Combination bolt

- 10 Nm

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5 - Combination bolt

- 50 Nm

Disconnect upper coolant hose

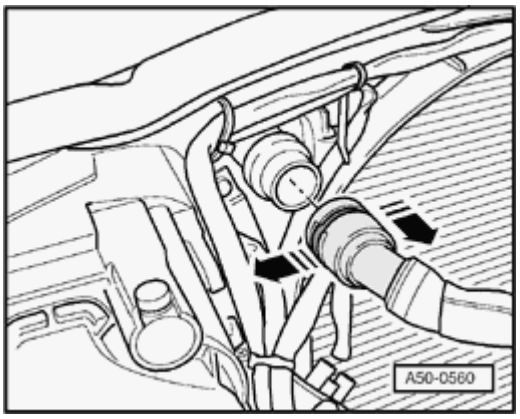


Fig. 5: Disconnect Upper Coolant Hose
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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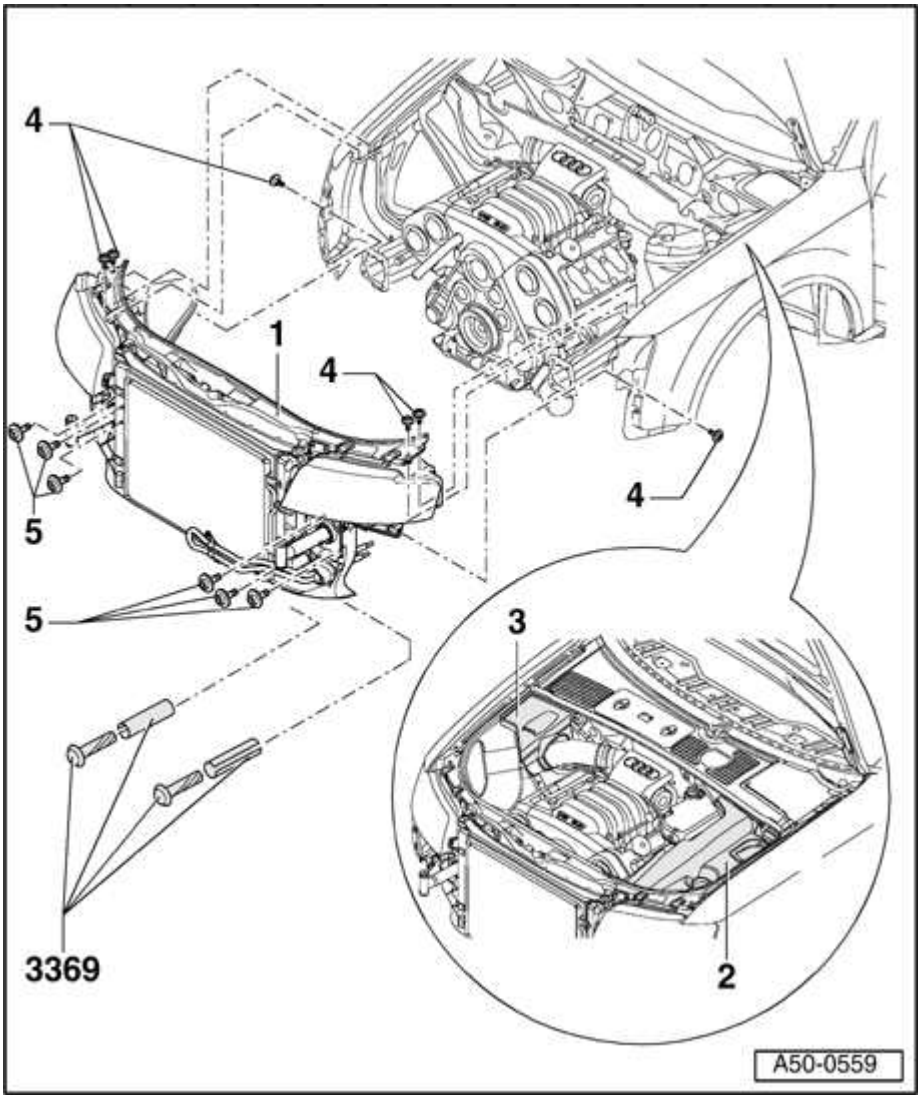


Fig. 6: Lock Carrier Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull out retainer for coolant line connecting flange at top of radiator and remove connecting flange.

Disconnect lower coolant hose

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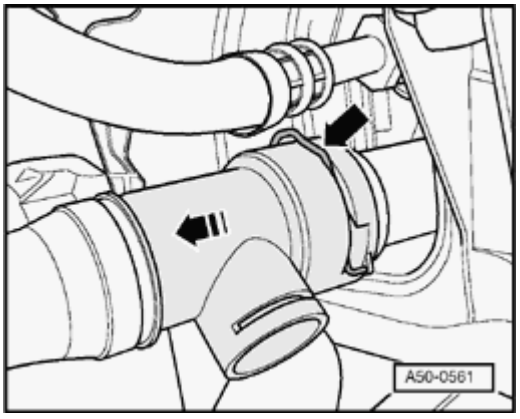


Fig. 7: Disconnecting Lower Coolant Hose
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull out retainer for coolant line connecting flange at bottom of radiator and remove connecting flange.
- Bleed cooling system. Refer to
  - **19 - ENGINE - COOLING SYSTEM** for 1.8 LITER 4-CYL. 5V TURBO ENGINE MECHANICAL, ENGINE CODE(S): AMB
  - **19 - ENGINE - COOLING SYSTEM** for 2.0 LITER 4-CYL. 4V TURBO ENGINE MECHANICAL, ENGINE CODE(S): BPG, BWT
  - **19 ENGINE - COOLING SYSTEM** for 3.0 LITER 6-CYL. 5V ENGINE MECHANICAL, ENGINE CODE(S): AVK, BGN
  - **19 - ENGINE - COOLING SYSTEM** for 3.2 V6 4V ENGINE MECHANICAL, ENGINE CODE (S): BKH
  - **19 - ENGINE - COOLING SYSTEM** for 4.2 LITER V8 4V ENGINE MECHANICAL, ENGINE CODE(S): BNS
  - **19 - ENGINE - COOLING SYSTEM** for 4.2 LITER V8 5V ENGINE MECHANICAL, ENGINE CODE(S): BHF

Disconnect hydraulic oil cooler

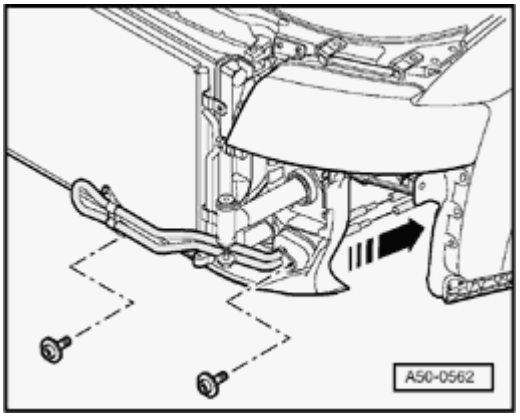


Fig. 8: Disconnecting Hydraulic Oil Cooler
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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- Disconnect hoses from hydraulic oil line.
- Unscrew hydraulic line for power-assisted steering on lock carrier.

Disconnect hoses for charge air cooler

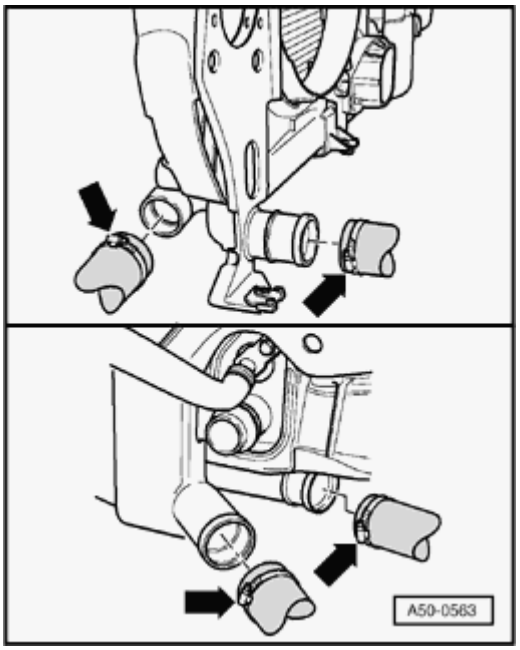


Fig. 9: Disconnecting Hoses For Charge Air Cooler
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- On vehicles with charge air cooler, loosen bolts on hose clamps - **arrows** -.
- Disconnect hoses.

Cowl panel trim, removing and installing

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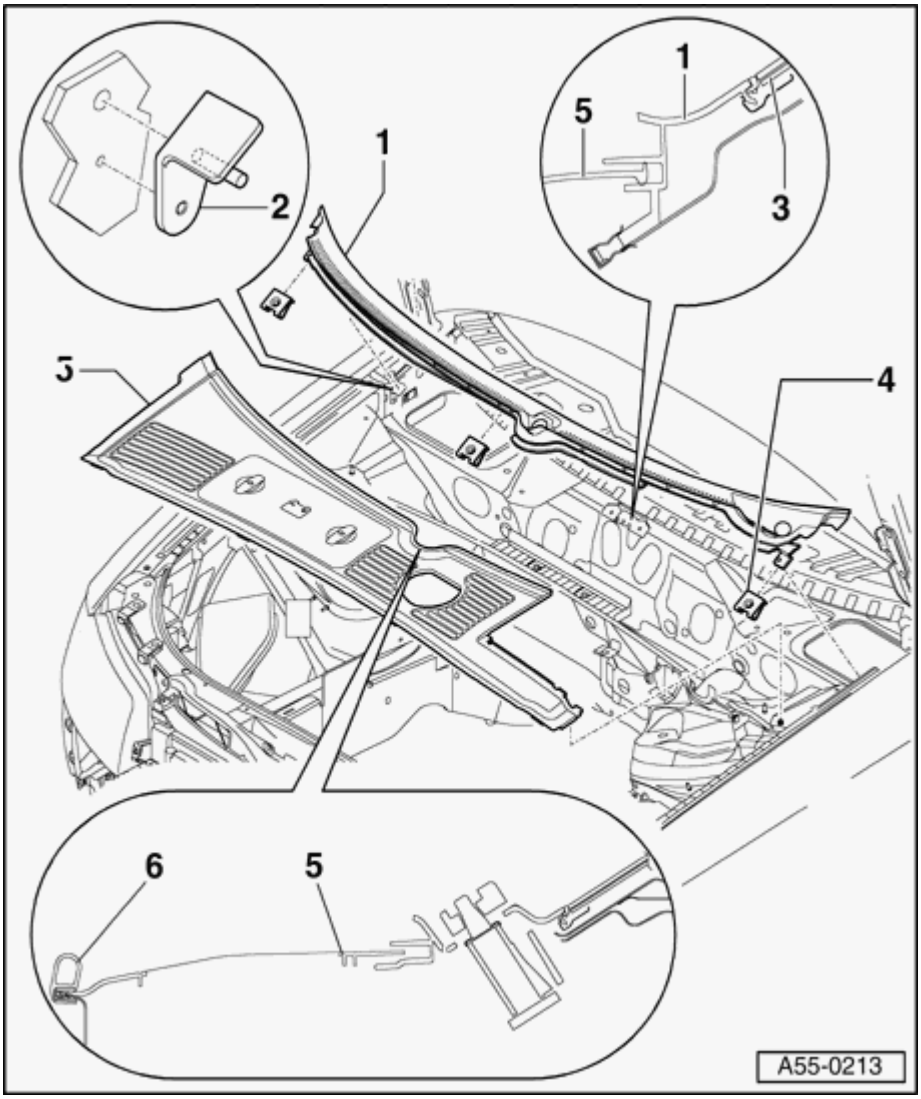


Fig. 10: Cowl Panel Trim Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Cowl trim

- Windshield wiper arms removed.
- Plenum chamber cover removed.
- Pull out securing pins - **4** -.
- Remove trim from retaining strip at windshield, bottom.

- Remove trim upward.
- When installing, make sure that the trim engages completely into retaining strip.

2 - Support

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3 - Windshield

4 - Securing pin

5 - Plenum chamber cover

- Remove gasket - **6** - and remove cover from cowl panel trim

6 - Gasket

Transverse support (dome brace), removing and installing

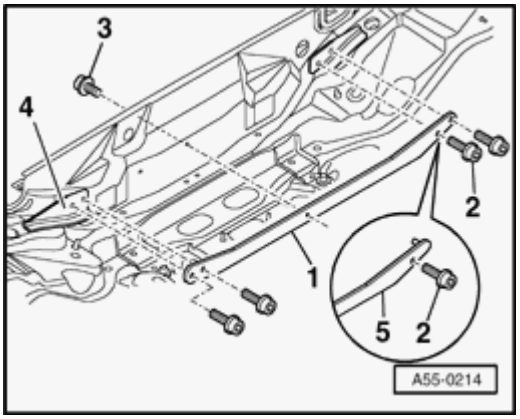


Fig. 11: Transverse Support (Dome Brace) Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts - **2** - and - **3** -.
- Remove transverse support - **1** - from mount - **4** -.
- Transverse support - **5** - only with Right Hand Drive

Fender, removing and installing

NOTE:

- **Bolts and washers are micro-encapsulated and must be replaced after loosening or after removing the fender.**

Up to Vehicle Identification Number (VIN) 400 000

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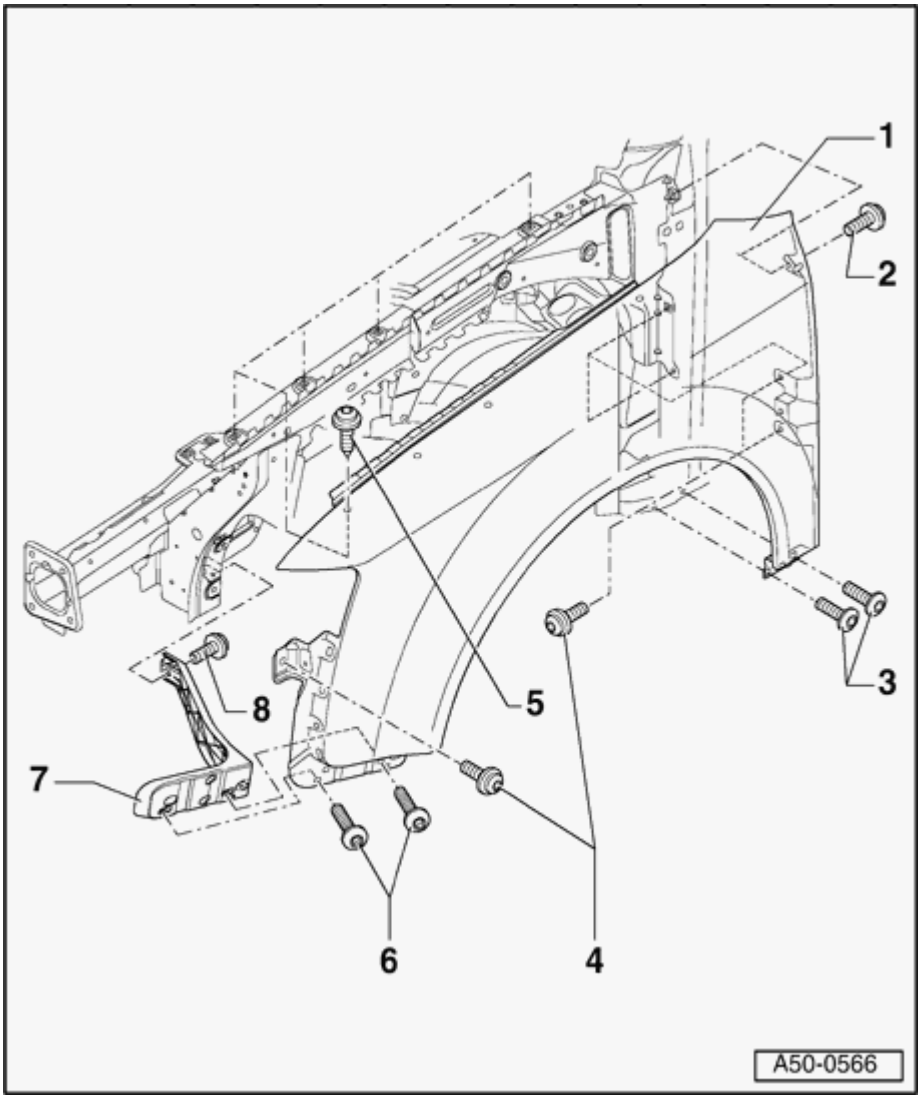


Fig. 12: Fender Remove/Install Components (Up To Vehicle Identification Number (VIN) 400 000)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Fender

- Remove bumper --> **Front bumper, removing and installing**.
- Remove wheelhousing liner --> **Wheelhousing liner, removing and installing**.
- Remove end plate --> **Removing and installing end plate**.
- Remove headlight. Refer to
  - **94 LIGHTS, SWITCHES - EXTERIOR**
  - **94 LIGHTS, SWITCHES - EXTERIOR** for ELECTRICAL EQUIPMENT, CABRIOLET ; Headlights, repairing

- Disconnect electrical connectors for the side blinkers.

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2 - Combination bolt

- 8 Nm

3 - Combination bolt

- 10 Nm

4 - Combination bolt

- 10 Nm

5 - Combination bolt

- 10 Nm

6 - Combination bolt

- 10 Nm

7 - Bracket

8 - Combination bolt

- 10 Nm

As of Vehicle Identification Number (VIN) 400 001

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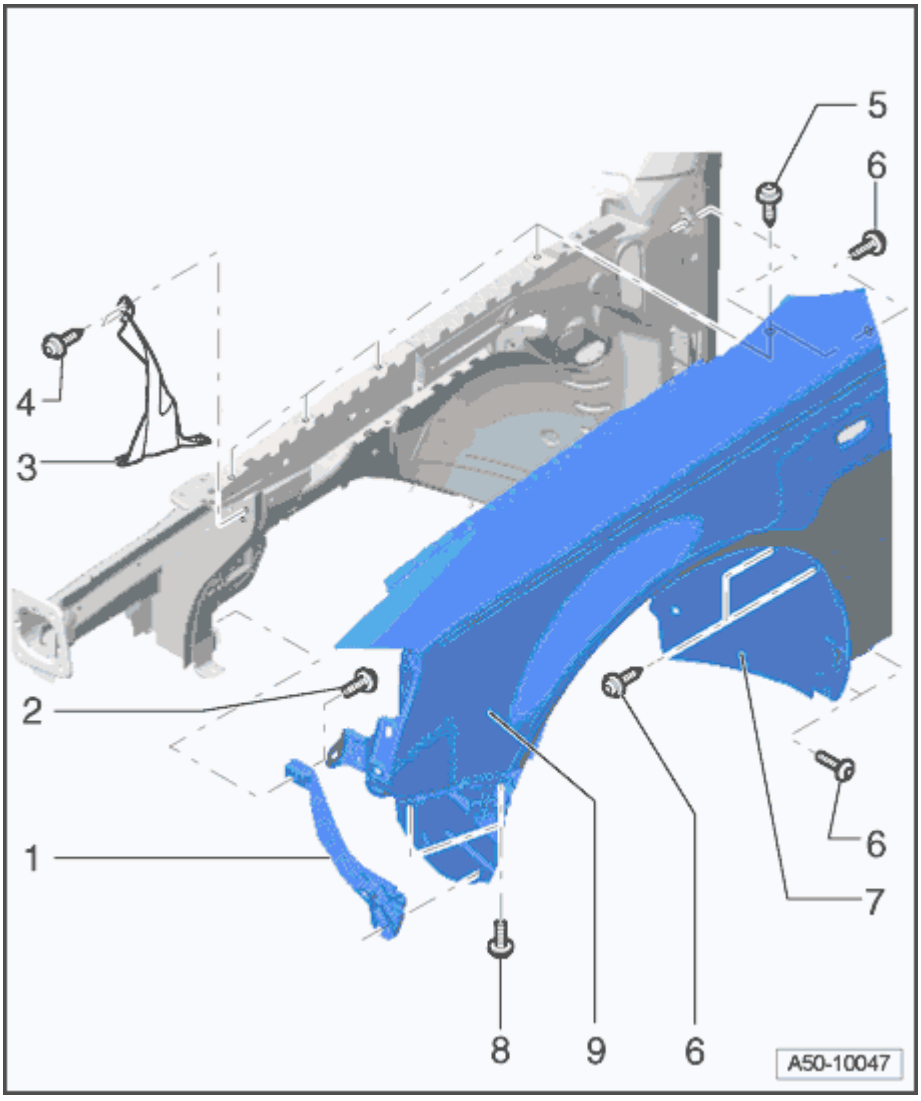


Fig. 13: Fender Remove/Install Components (As Of Vehicle Identification Number (VIN) 400 001)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Brace for wheelhousing liner

2 - Combination bolt

- 10 Nm

3 - Brace for fender

4 - Combination bolt

- 10 Nm

5 - Torx screw

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- 10 Nm

6 - Combination bolt

- 8 Nm

7 - Wheelhousing liner

- Removed

8 - Combination bolt

- 10 Nm

9 - Fender

- Remove bumper --> **Front bumper, removing and installing**.
- Remove wheelhousing liner --> **Wheelhousing liner, removing and installing**.
- Remove end plate --> **Removing and installing end plate**.
- Remove headlight. Refer to
  - **94 LIGHTS, SWITCHES - EXTERIOR**
  - **94 LIGHTS, SWITCHES - EXTERIOR** for ELECTRICAL EQUIPMENT, CABRIOLET ; Headlights, repairing
- Disconnect electrical connectors for the side blinkers.
- Remove bolts - **5** - ; - **6** - and - **8** - and remove fender.

Removing and installing end plate

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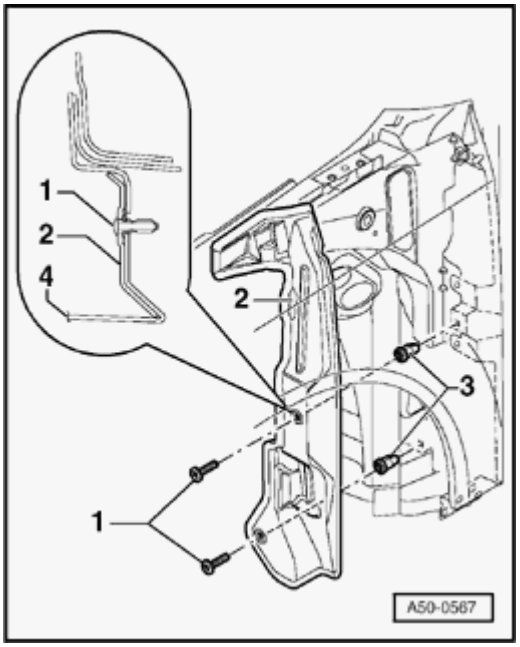


Fig. 14: Removing And Installing End Plate
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Front wheel removed.
- Wheelhousing liner removed.
- Unscrew bolts - **1** - from expanding clip - **3** - and remove end plate - **2** - from fender - **4** -.
- Tightening torque 2 Nm

Noise insulation panel - assembly overview

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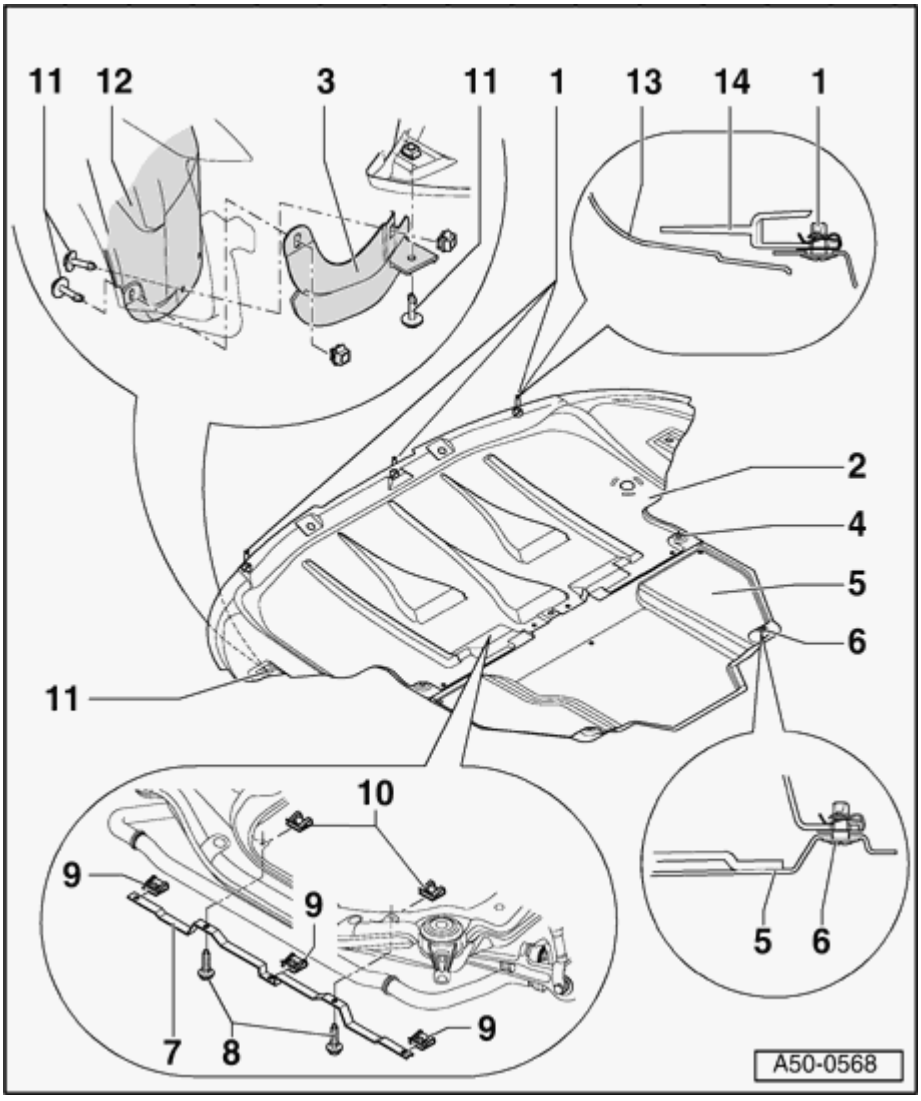


Fig. 15: Noise Insulation Panel - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Quick release screw

- Remove only these quick release screws for service position of lock carrier.
- 3 pieces

2 - Noise insulation, front

3 - Wheel spoiler

4 - Quick release screw

- 3 pieces

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5 - Noise insulation panel rear

- Only installed for certain motor types

6 - Quick release screw

- Two pieces

7 - Noise insulation panel mount

- Marking (recess) must point to left vehicle side.

8 - Bolt

- Two pieces
- 7 Nm

9 - Speed nut

- 3 pieces

10 - Speed nut

- Two pieces

11 - Clamping pin

- Six pieces

12 - Wheelhousing liner

13 - Bumper

14 - Lock carrier with attachments

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50 - BODY - FRONT

BODY, FRONT

Lock carrier with attachments - assembly overview

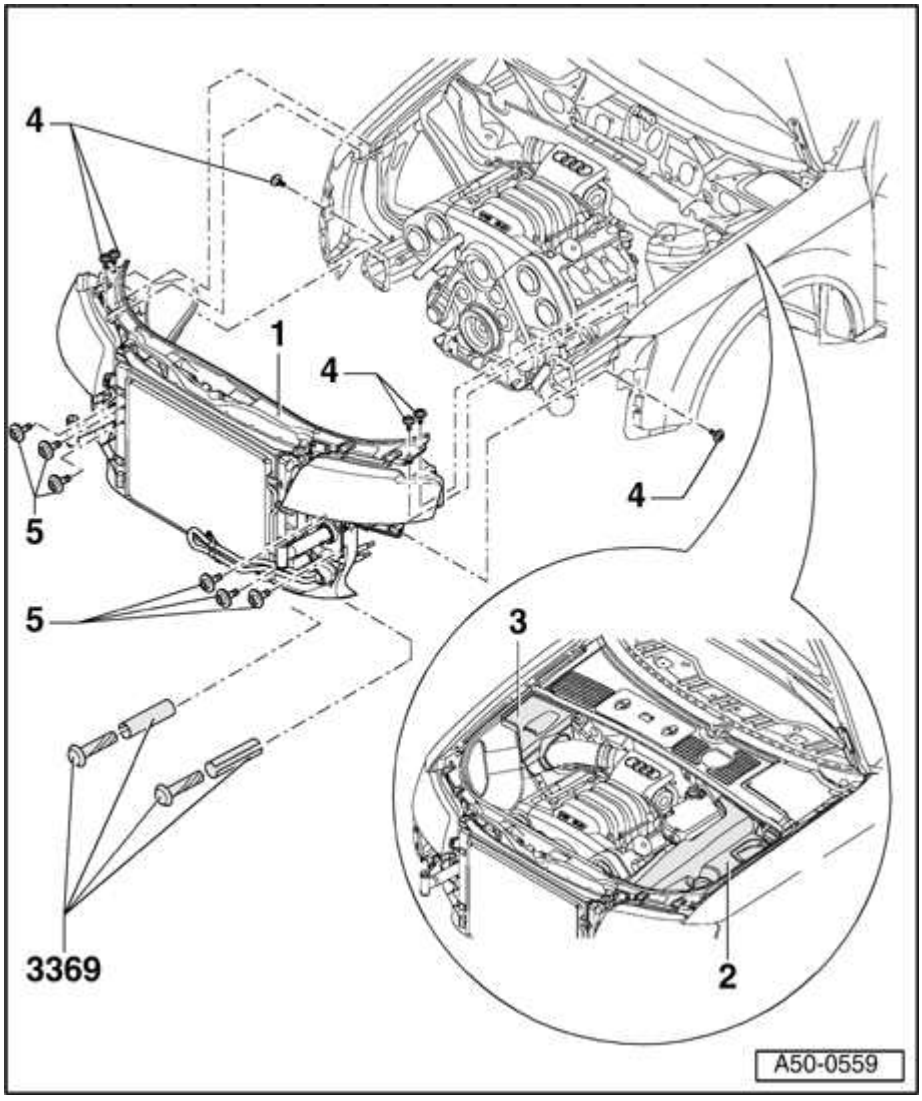


Fig. 1: Lock Carrier With Attachments - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Lock carrier

- Removing --> **Lock carrier with attachments, removing and installing**.

2 - Left engine cover

- Model variations

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3 - Right engine cover

- Model variations

4 - Screw

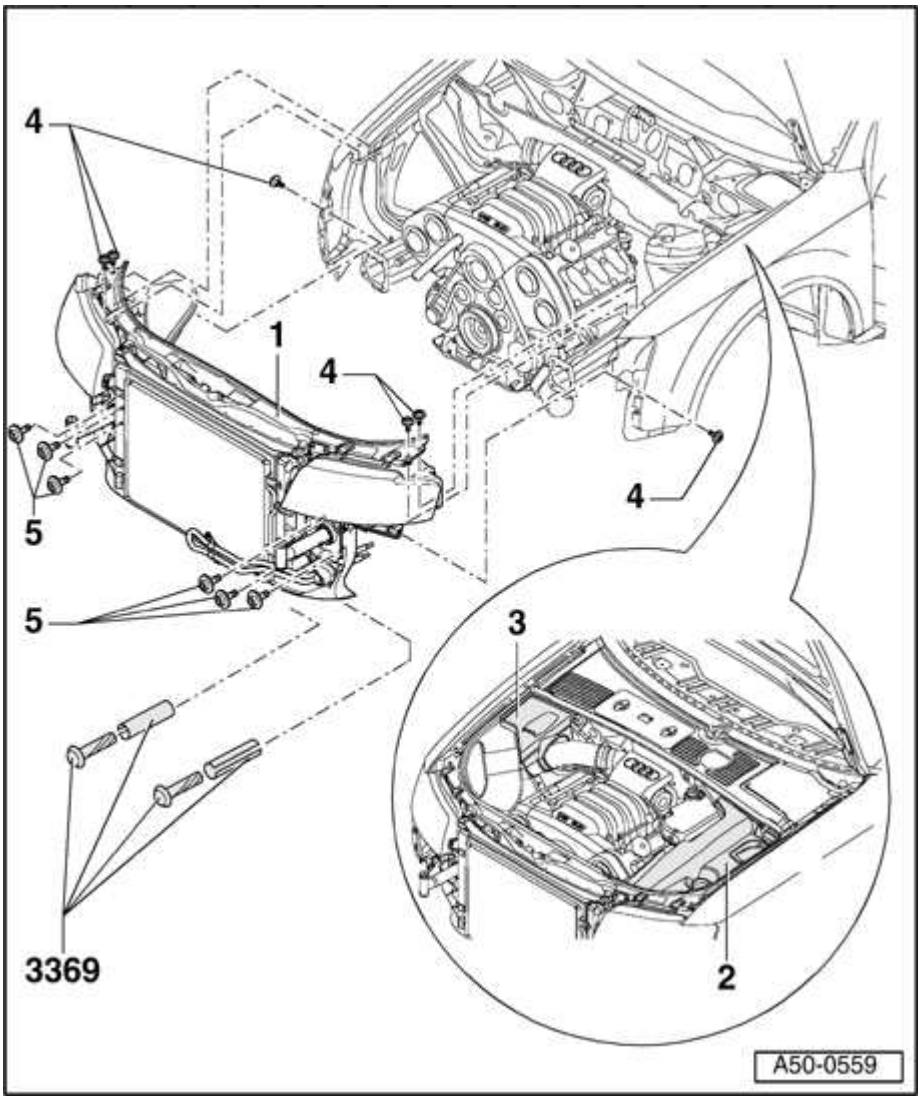
- 10 Nm

5 - Screw

- 50 Nm

Lock carrier with attachments, removing and installing

Removing



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Fig. 2: Lock Carrier With Attachments Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bumper --> **Front bumper (up to model year 2005), removing and installing**.
- Remove sound insulation --> **Noise insulation panel - assembly overview**.
- Disengage hood lock release --> **Hood cable, removing and installing**.
- Remove engine cover - **2** - and - **3** -.

- Remove air duct between lock carrier and air filter at lock carrier.
- Disconnect electrical connectors.
- Drain coolant.

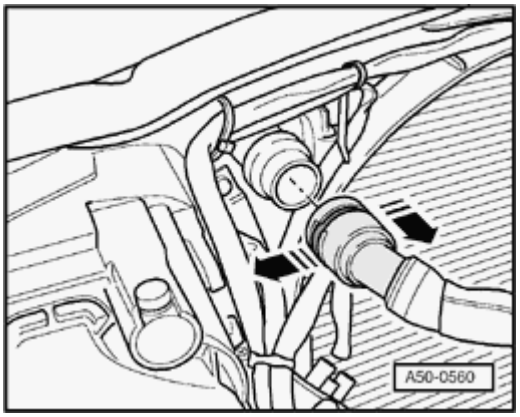


Fig. 3: Removing Coolant Hose Connecting Flange Retainer On Top Of Cooler And Connecting Flange
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove coolant hose connecting flange retainer on top of cooler and connecting flange - **arrows** -.

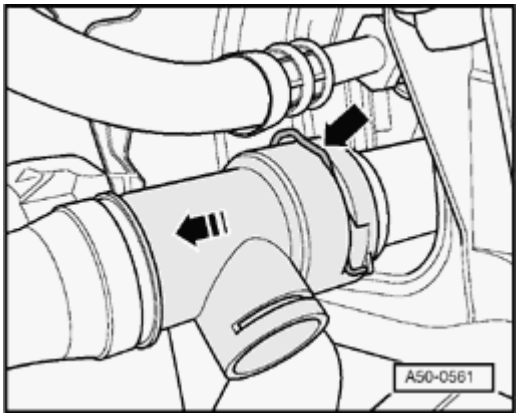


Fig. 4: Removing Coolant Hose Connecting Flange Retainer On Bottom Of Cooler And Connecting Flange
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove coolant hose connecting flange retainer on bottom of cooler and connecting flange - **arrows** -.

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- Loosen condenser only from water cooler (do not disconnect any lines).
- Secure A/C system condenser using wire e.g. to front wheel --> **87 AIR CONDITIONING** .

NOTE:

- **Do not hang condenser on lines. Condenser lines should not be pinched under any circumstances.**

- Disconnect hoses to power steering oil cooler.

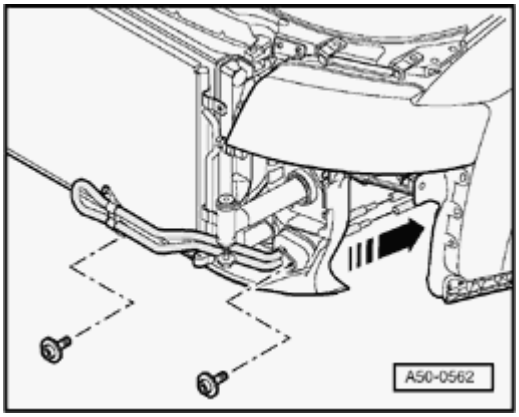


Fig. 5: Disconnecting Hydraulic Oil Cooler
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove power steering oil cooler --> **48 - STEERING** .
- Disconnect hoses from hydraulic oil line.
- Unscrew power steering line for power-assisted steering on lock carrier.

NOTE:

- **The power steering oil cooler line must not be bent under any circumstances.**

- For cars with automatic transmission, disconnect lines to ATF-cooler -->
  - **37 - AUTOMATIC TRANSMISSION - CONTROLS, HOUSING** for 5 SPD. AUTOMATIC TRANSMISSION 01V
  - **37 CONTROLS, HOUSING** for 6 SPD. AUTOMATIC TRANSMISSION 09L ALL WHEEL DRIVE
  - **37 - AUTOMATIC TRANSMISSION - CONTROLS, HOUSING** for CONTINUOUSLY VARIABLE TRANSMISSION (CVT) 01J

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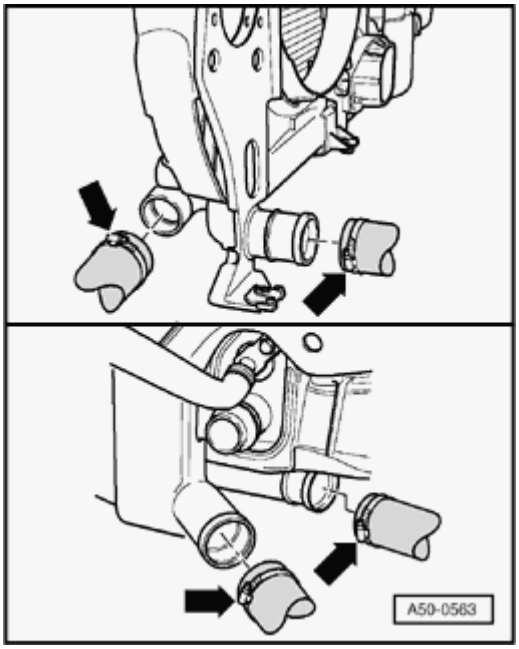


Fig. 6: Disconnecting Hoses For Charge Air Cooler
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- On vehicles with charge air cooler, loosen bolts on hose clamps - **arrows** -.
- Disconnect hoses.
- Remove gasket for left and right front flap at juncture of fender at lock carrier.
- Remove upper lock carrier bolts.

NOTE:

- **A 2nd technician will be needed to hold the lock carrier.**

- Remove bolt.
- Pull lock carrier toward front.

Installing

Installation is reverse of removal.

- Bleed cooling system -->
  - **19 - ENGINE - COOLING SYSTEM** for 1.8 LITER 4-CYL. 5V TURBO ENGINE MECHANICAL, ENGINE CODE(S): AMB
  - **19 - ENGINE - COOLING SYSTEM** for 2.0 LITER 4-CYL. 4V TURBO ENGINE MECHANICAL, ENGINE CODE(S): BPG, BWT
  - **19 ENGINE - COOLING SYSTEM** for 3.0 LITER 6-CYL. 5V ENGINE MECHANICAL, ENGINE CODE(S): AVK, BGN
  - **19 - ENGINE - COOLING SYSTEM** for 3.2 V6 4V ENGINE MECHANICAL, ENGINE CODE (S): BKH

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- **19 - ENGINE - COOLING SYSTEM** for 4.2 LITER V8 4V ENGINE MECHANICAL, ENGINE CODE(S): BNS
- **19 - ENGINE - COOLING SYSTEM** for 4.2 LITER V8 5V ENGINE MECHANICAL, ENGINE CODE(S): BHF

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Tightening torques --> **Lock carrier with attachments - assembly overview**.

Lock carrier service position

Special tools, testers and auxiliary items required

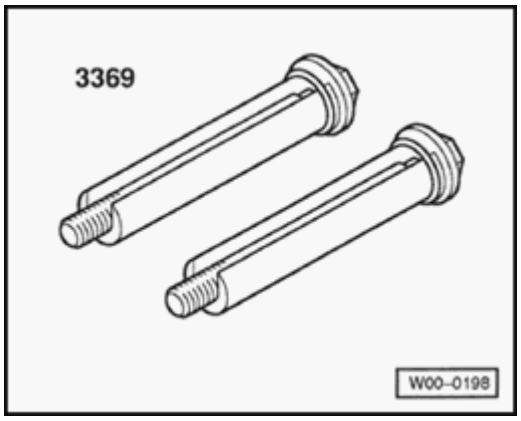


Fig. 7: Support Tool 3369
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Support Tool 3369

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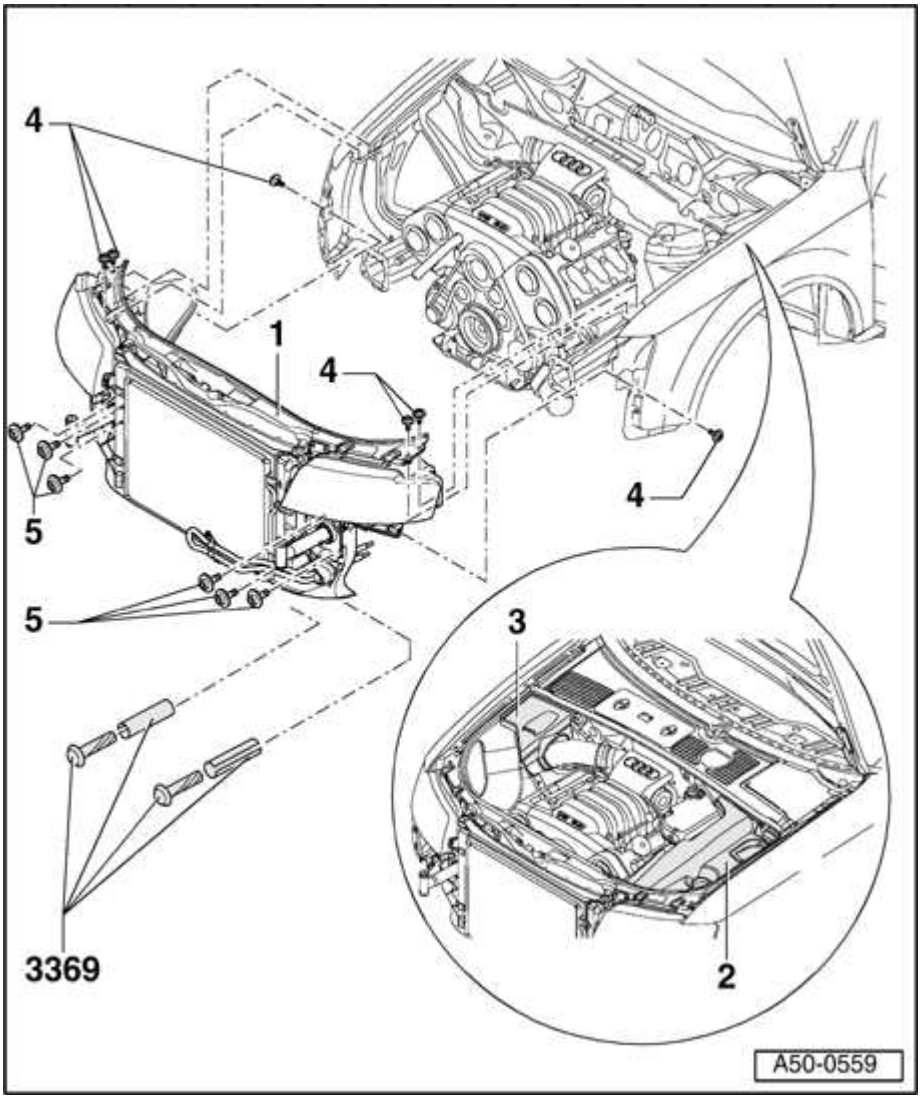


Fig. 8: Lock Carrier Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bumper --> **Front bumper (up to model year 2005), removing and installing**.
- Remove engine cover - **2** - and - **3** -.
- Unscrew intake air duct between lock carrier and air cleaner housing at lock carrier and remove.

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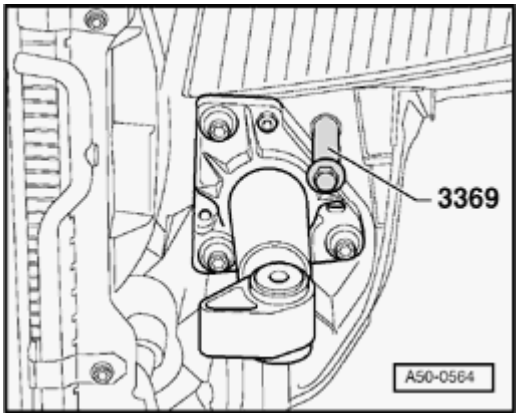


Fig. 9: Install Support Tool 3369 At Left/Right
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Install Support Tool 3369 at left and right as shown.
- Remove bolts - **5** - at left and right.
- Remove bolts - **4** - and pull lock carrier - **1** - toward front.
- Pull lock carrier forward until rear hole in lock carrier aligns with front threaded hole in fender flange.

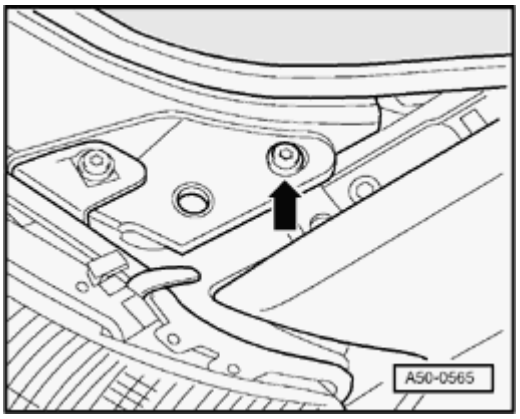


Fig. 10: Securing Lock Carrier At Left/Right With Bolts
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Secure lock carrier at left and right with bolts - **arrow** -.

Assembly is performed in the reverse order of removal.

Tightening torques --> **Lock carrier with attachments - assembly overview**.

NOTE:

- **After assembly of lock carrier, check headlight positioning and adjust if necessary -->**
  - **01 - MAINTENANCE**
  - **01 - MAINTENANCE for MAINTENANCE PROCEDURES - CABRIOLET**

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Cowl panel trim, removing and installing

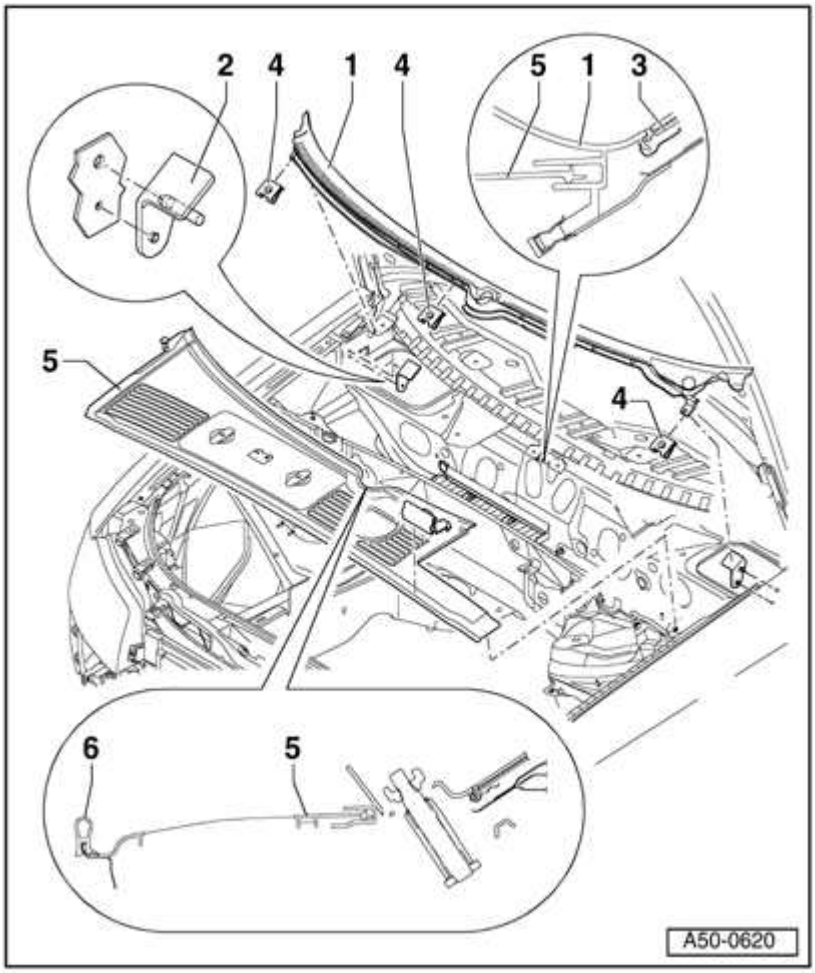


Fig. 11: Cowl Panel Trim Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Cowl panel trim

- **Removing:**

  - Remove wiper arms -->
    - **92 WINDSHIELD WIPER WASHER SYSTEM**
    - **92 WINDSHIELD WIPER & WASHER SYSTEM** for ELECTRICAL EQUIPMENT, CABRIOLET

    .
  - Remove plenum chamber cover.
  - Remove securing pins
  - Remove trim from retaining strip at windshield, bottom.

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- Remove trim upward.

- When installing, make sure that the trim engages completely into retaining strip.

2 - Support

3 - Windshield

4 - Securing pin

5 - Plenum chamber cover

6 - Gasket

Engine compartment covers

Model variations

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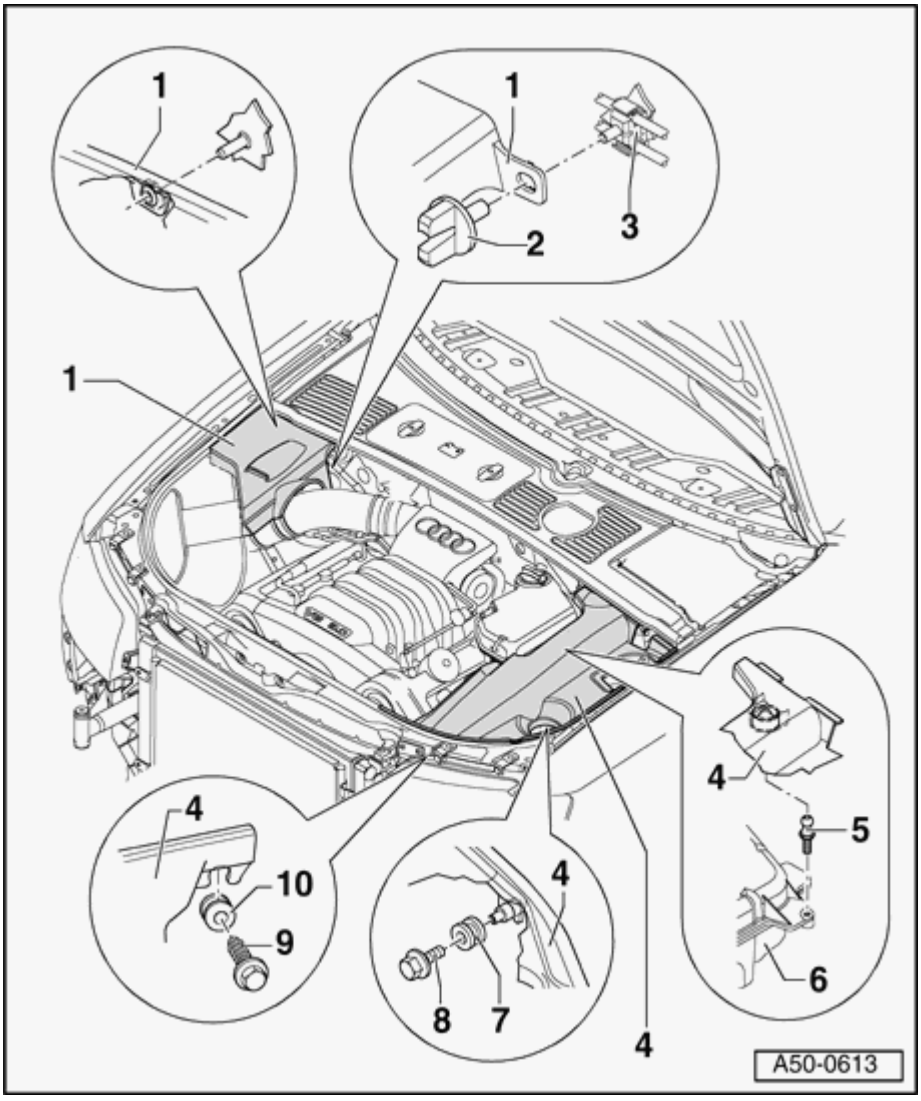


Fig. 12: Engine Compartment Covers
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Right engine compartment cover

2 - Toggle bolt

3 - Brake line bracket

4 - Left engine compartment cover

5 - Ball stud

6 - Coolant reservoir

7 - Grommet

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8 - Bolt

- 3 Nm

9 - Bolt

- 9 Nm

10 - Grommet

Front fender - assembly overview

NOTE:

- **Bolts and washers are micro-encapsulated and must be replaced after loosening or after removing the fender.**

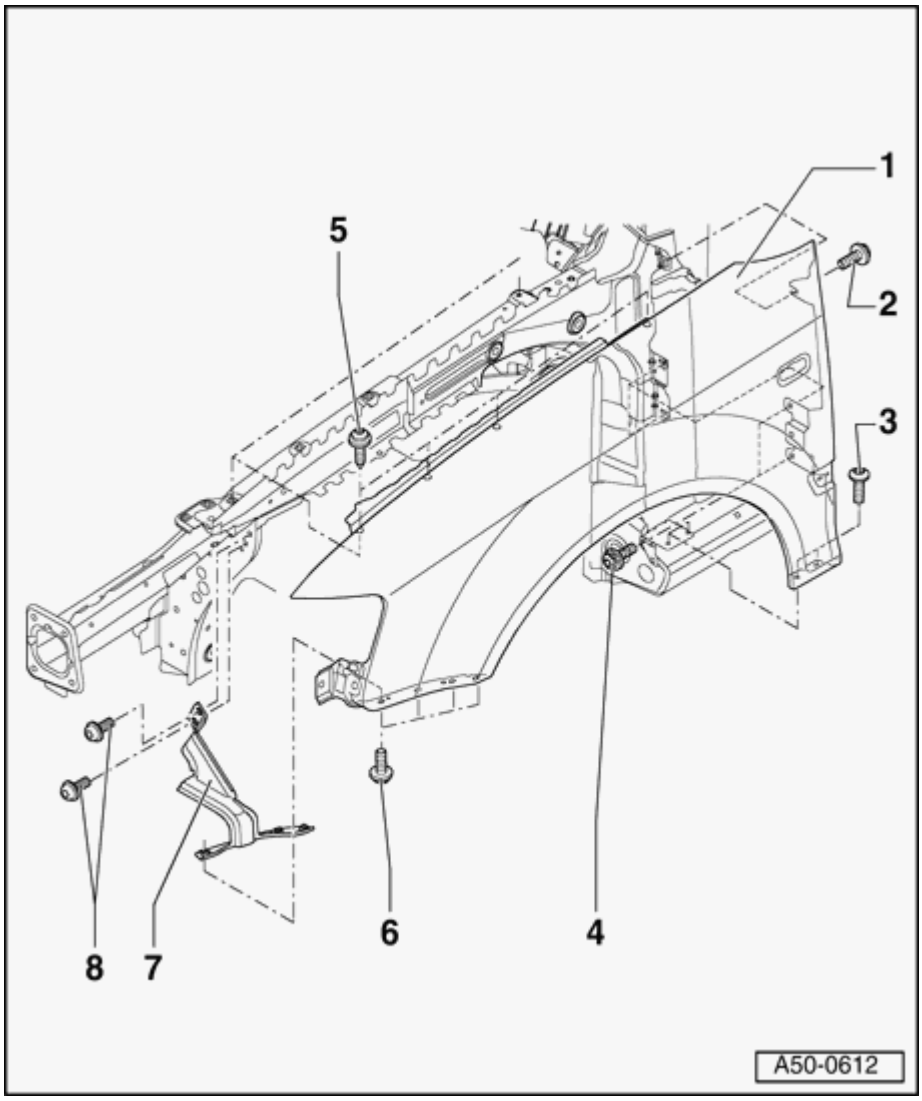


Fig. 13: Front Fender - Assembly Overview

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Fender

- Remove bumper --> **Front bumper (up to model year 2005), removing and installing**.
- Remove wheel housing liner --> **Front wheel housing liner, removing and installing**.
- Remove end plate **Remove and install end plate**.
- Loosen headlamp -->
  - **94 LIGHTS, SWITCHES - EXTERIOR**
  - **94 LIGHTS, SWITCHES - EXTERIOR** for ELECTRICAL EQUIPMENT, CABRIOLET

  .
- Disconnect side blinker electrical connections.

2 - Screw

- 7 Nm

3 - Screw

- 10 Nm

4 - Screw

- 10 Nm

5 - Screw

- 10 Nm

6 - Bolt

- 10 Nm

7 - Bracket

- Removing and installing **Bracket for fender**.

8 - Screw

- 10 Nm

Bracket for fender

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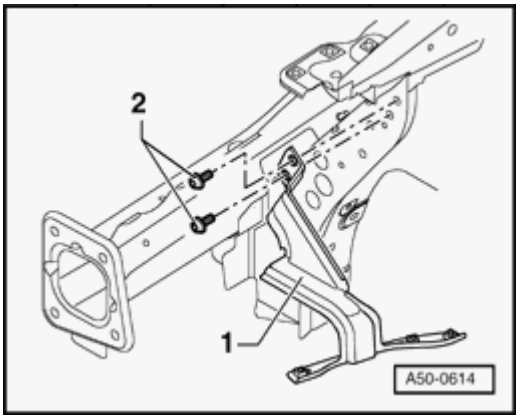


Fig. 14: Bracket For Fender
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Fender removed.
  - Remove bolts - **2** - and remove bracket - **1** -.

Fender insulation

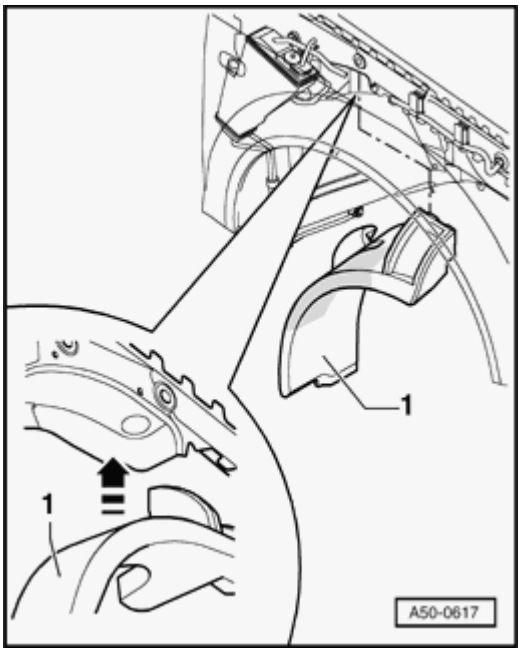


Fig. 15: Fender Insulation
Courtesy of VOLKSWAGEN UNITED STATES, INC.

NOTE:

- **Only installed with 3.0L gasoline engine.**
  - Before installation, break out at EVAP canister perforated line.

Left fender seal

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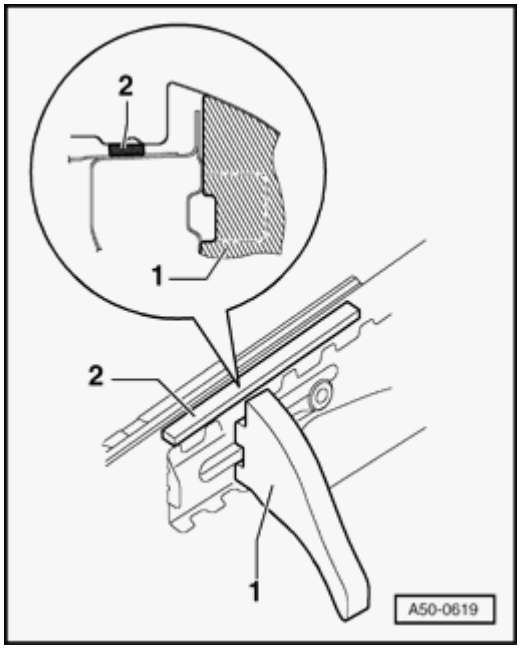


Fig. 16: Left Fender Seal
Courtesy of VOLKSWAGEN UNITED STATES, INC.

NOTE:

- **A new seal must always be installed after removal.**

  - Seal must be broken out at perforated line before installation.
  - Remove protective adhesive film from seal - **1** - , insert in fender and press on firmly.

2 - Fender seal

Right fender seal

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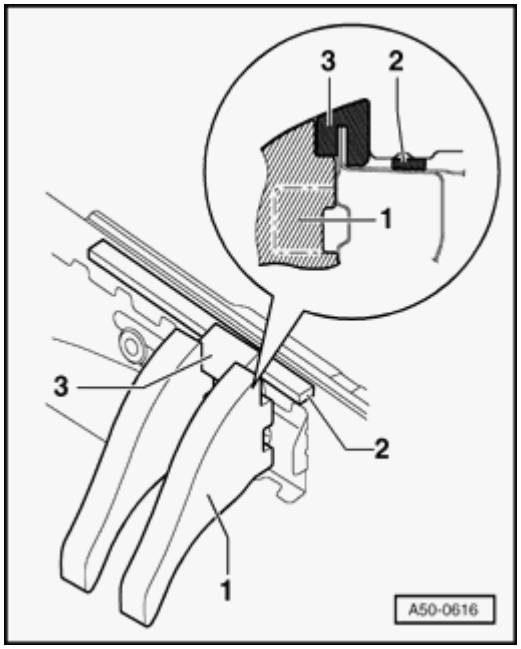


Fig. 17: Right Fender Seal
Courtesy of VOLKSWAGEN UNITED STATES, INC.

NOTE:

- **A new seal must always be installed after removal.**
- **Both seals are installed on the right side only on vehicles with diesel engine.**

- Remove protective adhesive film from seal - **1** - and insert in fender.

2 - Fender seal

3 - Seal connecting piece (only on vehicles with TDI engine)

Remove and install end plate

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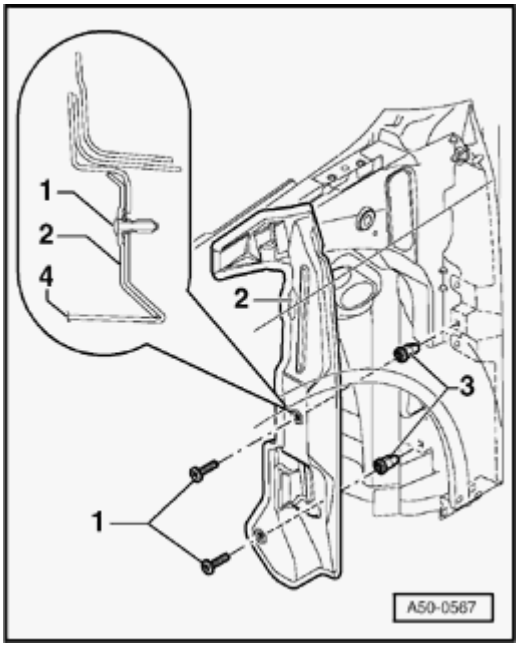


Fig. 18: Remove And Install End Plate
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Front wheel removed.
- Wheel housing liner removed.

  - Unscrew bolts - **1** - from expanding clip - **3** - and remove end plate - **2** - from fender - **4** -.

1 - Screw (2 Nm)

Noise insulation panel - assembly overview

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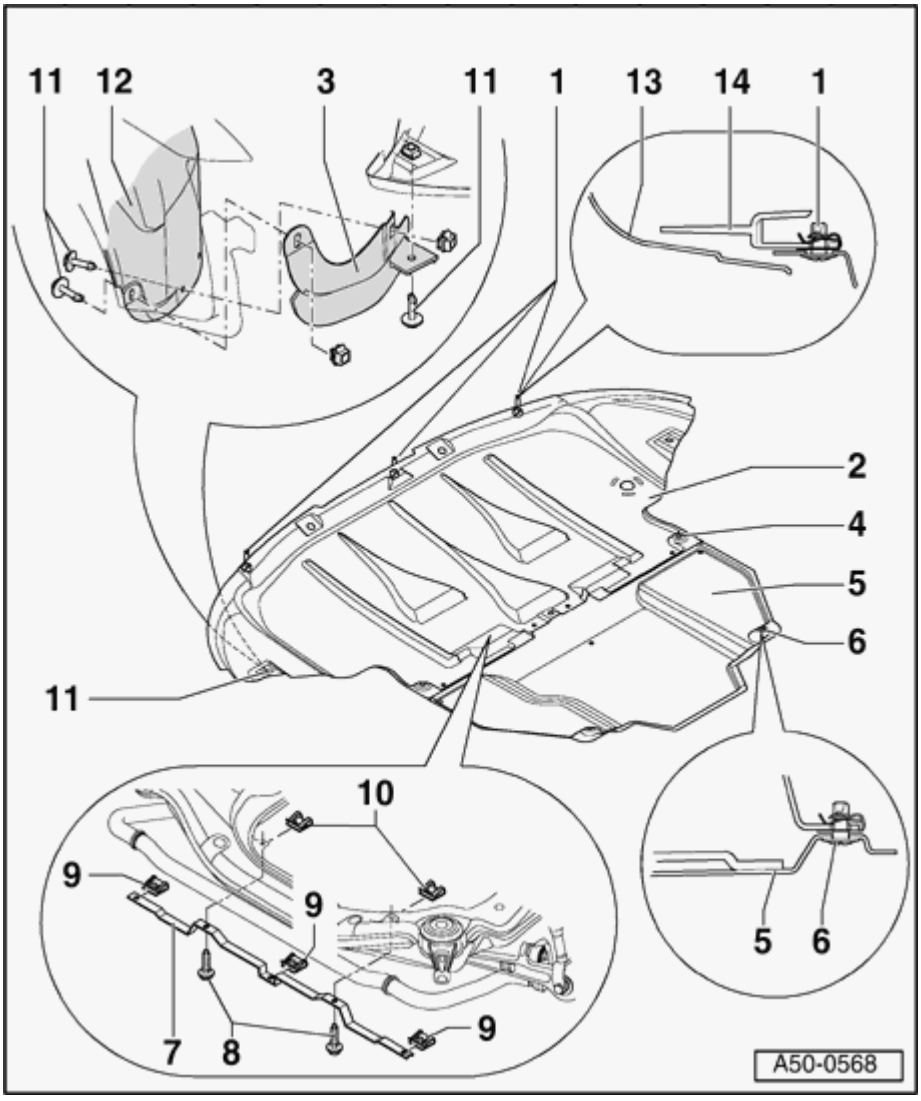


Fig. 19: Noise Insulation Panel - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Quick release screw

- Only loosen these quick release screws for lock carrier service position.
- Qty. 3

2 - Noise insulation, front

3 - Wheel spoiler

4 - Quick release screw

- Qty. 3

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5 - Noise insulation panel rear

- Installed only with specific engine versions.

6 - Quick release screw

- Qty. 2

7 - Noise insulation mount

- Marking (recess) must point to left vehicle side.

8 - Screw

- 7 Nm
- Qty. 2

9 - Spring nut

- Qty. 3

10 - Spring nut

- Qty. 2

11 - Clamping pin

- Qty. 6

12 - Wheel housing liner

13 - Bumpers

14 - Lock carrier with attachments

.

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57 - FRONT DOORS, CENTRAL LOCKING SYSTEM

FRONT DOOR

Door, removing and installing

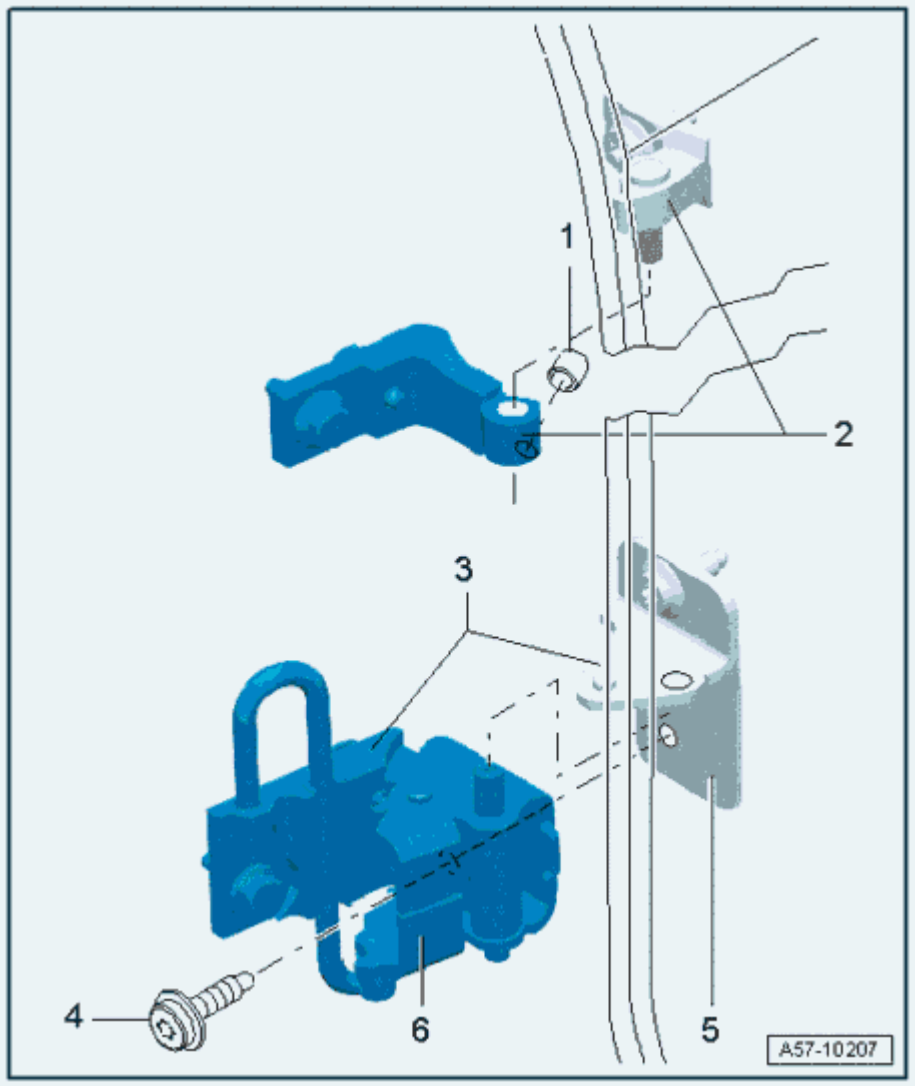


Fig. 54: Door Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

NOTE:

- **For various assembly work, the entire door can be completely raise from the door hinges after electrical connectors on lower A-pillar have been disconnected.**
- **Adjustments must not be made after installation.**

- Pull bellows down from A-pillar.

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- Disconnect electrical connectors on bottom of A-pillar.
- Loosen bolt - **1** - on upper door hinge - **2** -.
- Remove lower bolt - **4** - on bottom door hinge - **3** -.

- Raise door with a second technician.

Installation is reverse of removal.

Tightening torques --> **Door hinge - assembly overview**.

Window regulator - assembly overview

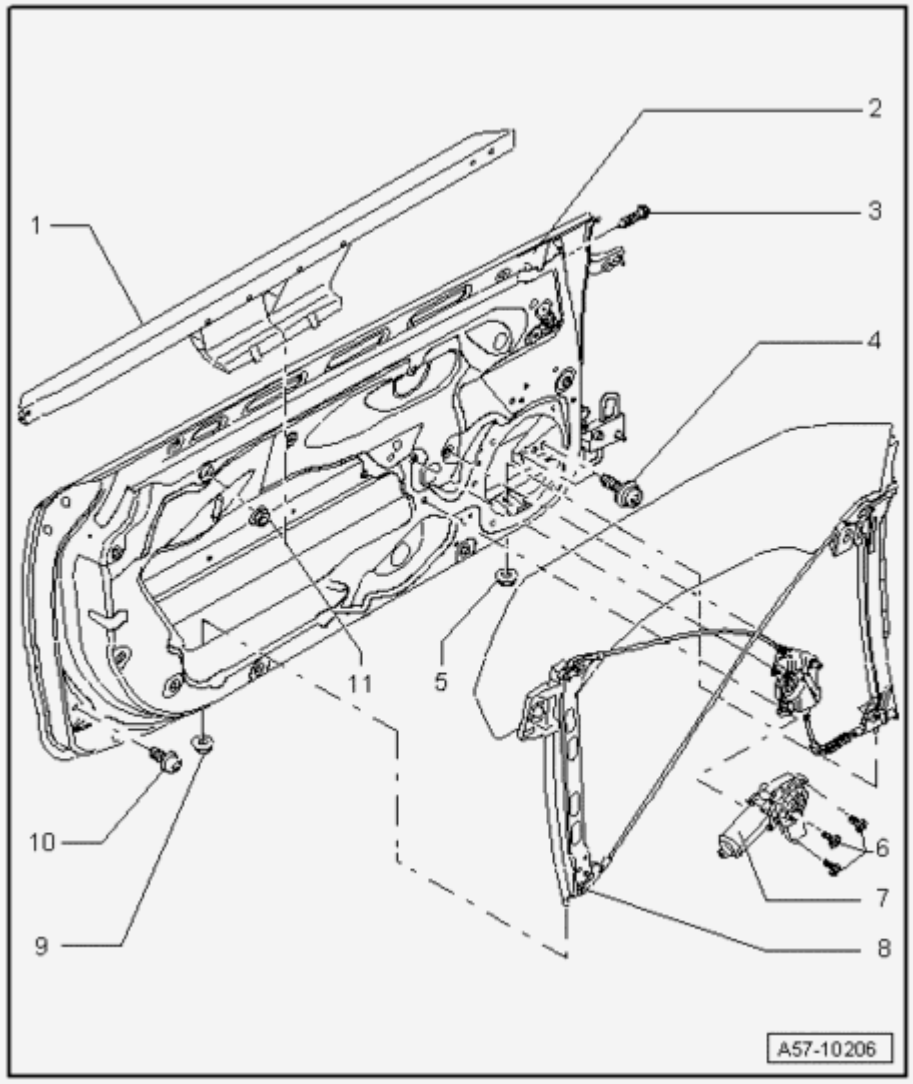


Fig. 55: Window Regulator - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Side impact member

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- Removing --> **Side impact absorber, removing and installing**.

2 - Front door

- Removing --> **Door, removing and installing**.
- Adjusting --> **Front door, adjusting**.
- Panel gap dimensions **Panel gap dimensions**.

3 - Screw

- 8 Nm
- Qty. 2

4 - Screw

- For impact member
- 30 Nm

5 - Nut

- For window regulator
- 8 Nm

6 - Screw

- 4 Nm
- 3x

7 - Window regulator motor

- Removing and installing --> **Motor for window regulator, removing and installing**.

8 - Window regulator

- Removing --> **Window regulator, removing and installing**.
- Basic setting --> **Window regulator, basic setting**.

9 - Nut

- For window regulator
- 8 Nm

10 - Screw

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- For impact member
- 30 Nm

11 - Nut

- For window regulator
- 8 Nm

Window regulator, removing and installing

NOTE:

- **Position of adjusting screws and nuts should be marked before loosening.**

Removing

- Remove door trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .
- Mark position of screws and nuts.
- Run window all the way up.
- Remove window --> **Door window - assembly overview**.
- Remove window regulator motor --> **Motor for window regulator, removing and installing**.
- Remove bass speaker.
- Remove rearview mirror --> **Side mirror, removing and installing**.

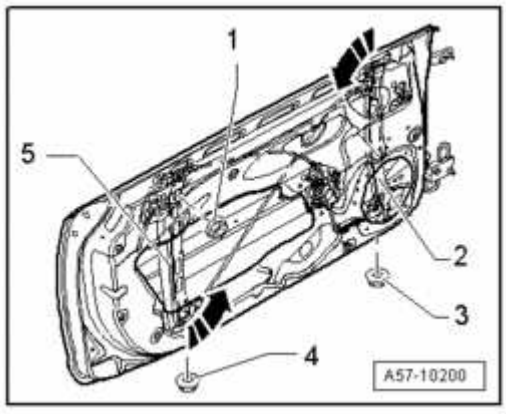


Fig. 56: Window Regulator, Removing And Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts - **1** - , - **3** - and - **4** -.
- Unclip cables.

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- Tip rear lower linkage - **5** - forward.
- Tip front upper linkage - **2** - back.

- Remove window regulator from door.

Installing

Installation is reverse of removal.

- After installation, perform basic setting --> **Window regulator, basic setting**.

Tightening torques --> **Window regulator - assembly overview**.

Side impact absorber, removing and installing

- Remove door trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .
- Remove window regulator --> **Window regulator, removing and installing**.

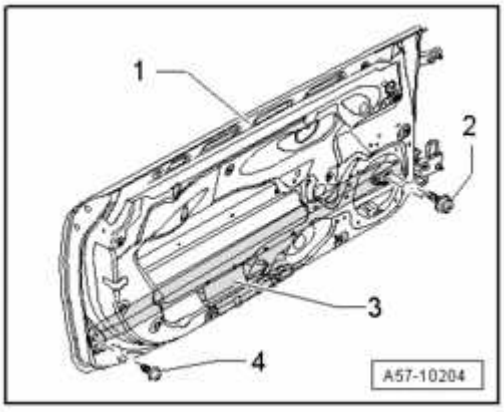


Fig. 57: Side Impact Absorber, Removing And Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts - **2** - and - **4** -.
- Rotate side impact absorber - **3** - 180° and remove it toward rear from door - **1** -.

Installation is performed in the reverse order of removal.

Tightening torques --> **Window regulator - assembly overview**.

Window regulator, basic setting

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Special tools, testers and auxiliary items required

- Caliper
- Steel ruler

NOTE:

- **When removing regulator or working with extreme adjusted values, it is necessary to perform a window regulator basic setting. The door trim, window regulator motor, speaker and door insulation are removed for this -->**
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM for BODY INTERIOR - CABRIOLET**

.

Window tension, checking

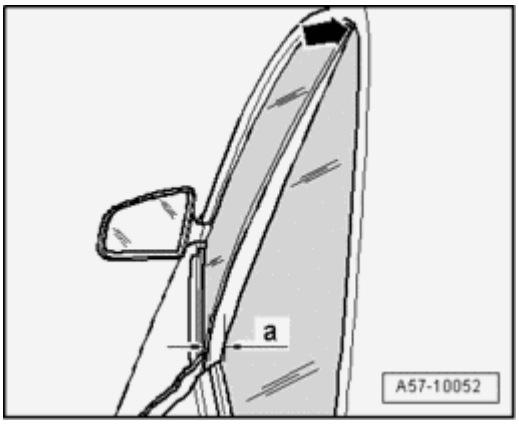


Fig. 58: Window Tension, Checking
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Close convertible top.

- Open door.
- Raise window (window is in short lift).
- Close door until upper edge of window touches side window seal - **arrow** -.
- Measure gap between side window and inner edge of door window with steel ruler.

- Specified dimension - **a** - = 6-8 mm.

Window tension, adjusting (rear lifting unit)

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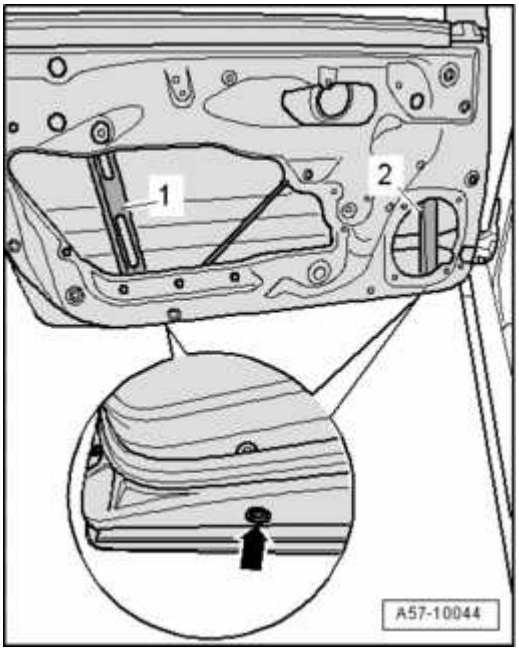


Fig. 59: Window Tension, Adjusting (Rear Lifting Unit)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

NOTE:

- **To adjust rear lifting unit - 1 - , door does not need to be disassembled.**
- **Adjust front lifting unit - 2 - Adjusting (front lifting unit).**

- Raise window (window is in short lift).
- Remove rubber stops - **arrow** -.
- Loosen rear lifting unit lower nut through opening - **1** -.
- Slide lifting unit in elongated hole toward door outer panel as far as stop.

- Tighten rear lifting unit and seal opening with rubber plugs.

Tightening torques --> **Window regulator - assembly overview**.

Adjusting (front lifting unit)

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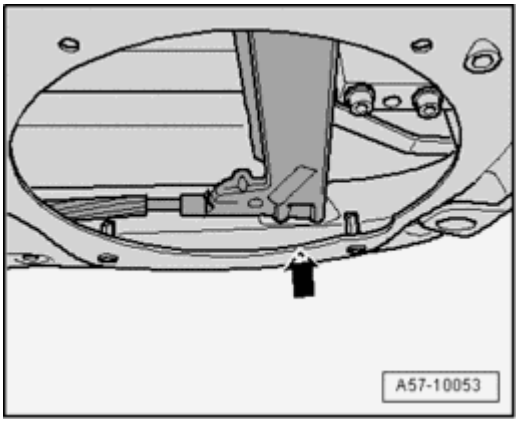


Fig. 60: Adjusting (Front Lifting Unit)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove window regulator motor, speaker and door insulation -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .
- Raise window (window is in short lift).
- Remove rubber stops - **arrow** -.
- Loosen front lifting unit lower nut through opening.
- Slide lifting unit in elongated hole until frame aligns with door inner notch.
- Tighten front lifting unit and seal opening with rubber plugs.

Tightening torques --> **Window regulator - assembly overview**.

Shaft dimension, checking and adjusting (rear lifting unit)

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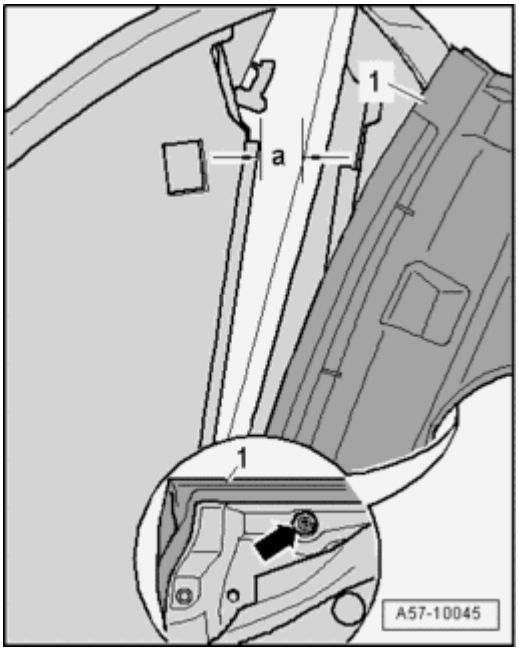


Fig. 61: Shaft Dimension, Checking And Adjusting (Rear Lifting Unit)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Disengage door trim as shown in illustration.
- Lay aside door seal - **1** - in B-pillar area.
- Raise window (window is in short lift).
- Using a caliper, measure shaft dimension (it must be possible to pull the gap gauge through with firm resistance).

- Shaft dimension - **a** - = 6 mm.

- Loosen lock nut - **arrow** -.
- Adjust shaft dimension by turning threaded pin.
- Tighten lock nut.

Tightening torques --> **Window regulator - assembly overview**.

Motor for window regulator, removing and installing

Removing

- Remove door trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

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NOTE:

- **Motor for window regulator can be removed or installed in every position of motor or side window.**

- Disconnect electrical connectors.

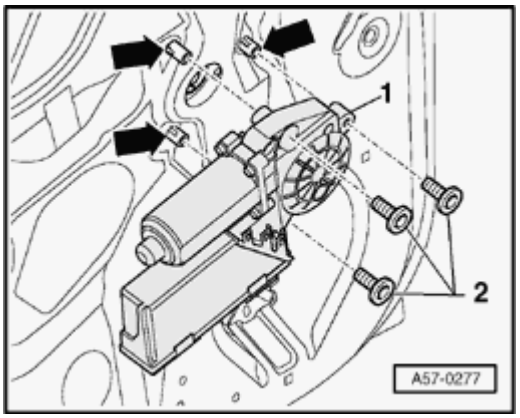


Fig. 62: Removing Bolts And Motor
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts - **2** - and remove motor - **1** -.

Installing

- Ensure threaded pins - **arrows** - are engaged in door inner panel.
- Slide on window regulator motor - **1** - and secure with bolts - **2** -.
- Attach electrical connector.

NOTE:

- **After installing motor, switch ignition on and off again with wires connected.**
- **Then move door window upward to stop and keep pressing switch for window regulator for approx. 2 seconds longer.**
- **This position is the base position and the high- and low-running function is activated.**

Tightening torques --> **Window regulator - assembly overview**.

Door window - assembly overview

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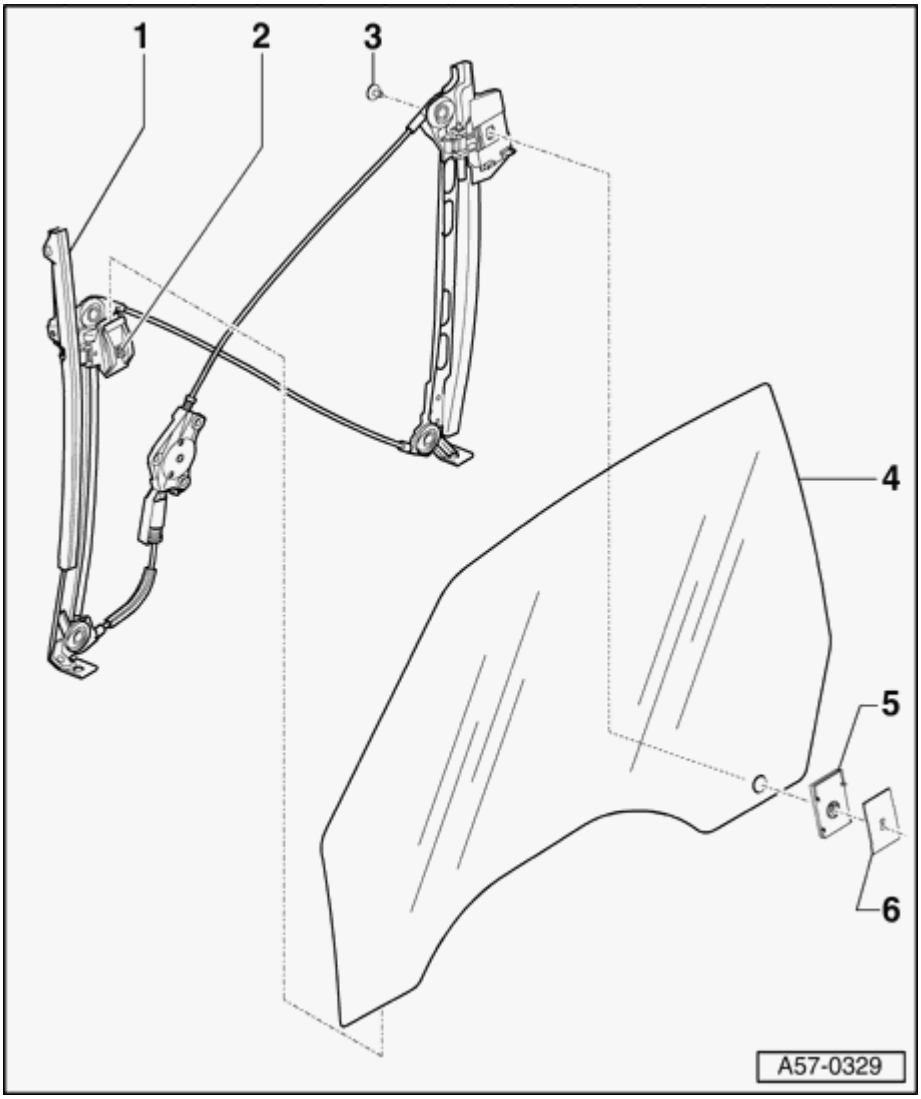


Fig. 63: Door Window - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Window regulator

- Must not be removed when door window is removed.
- Basic setting --> **Window regulator, basic setting**.

2 - Clamping brackets

- With attached bolt.
- 6 Nm

3 - Locking screw

- 6 Nm

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4 - Door window

- Removing --> **Door window, removing and installing**.
- Adjusting --> **Door window, adjusting**.

5 - Fastener

6 - Pressure plate

Door window, removing and installing

Removing

- Remove door trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .
- Remove inner shaft strip.
- Run window all the way up.

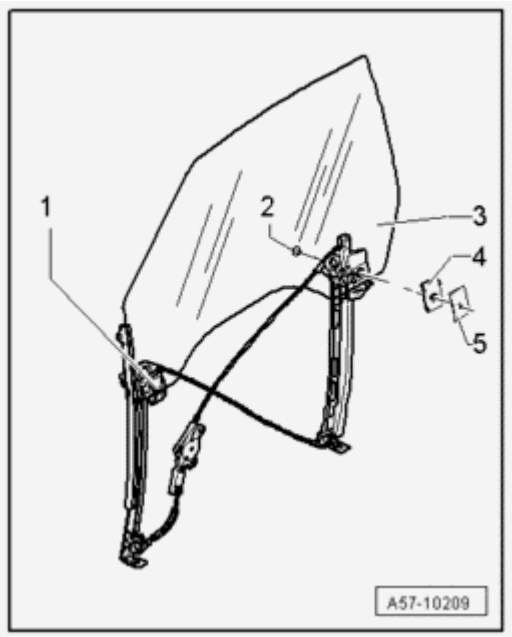


Fig. 64: Door Window Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Loosen clamping bracket connection - **1** -.
- Remove bolt - **2** - and remove fastener - **4** - and pressure plate - **5** -.
- Remove window - **3** - upward.

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Installing

Installation is reverse of removal.

- After installing, check window adjustment --> **Door window, adjusting**.

Tightening torques --> **Door window - assembly overview**.

Door window, adjusting

Special tools, testers and auxiliary items required

- Masking tape

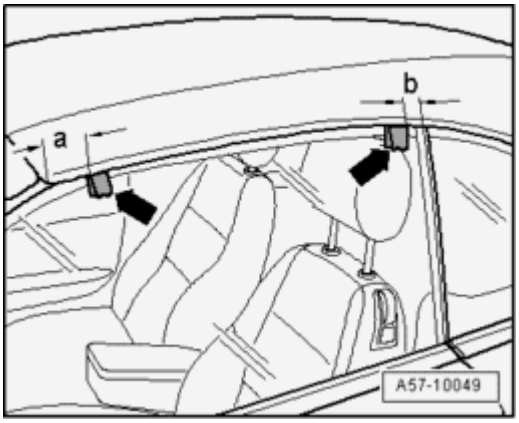


Fig. 65: Window Immersion Depth, Determining
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Window immersion depth, determining

- Close convertible top.

- Raise window.
- Tape masking tape - **arrows** - overlapping on window with door open.
- Close door completely.

- Dimension - **a** - = 80 mm.
- Dimension - **b** - = 40 mm.

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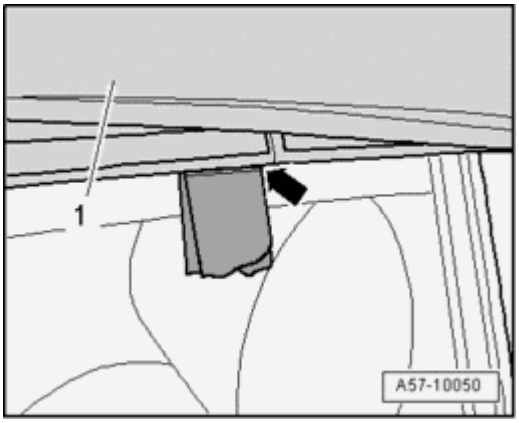


Fig. 66: Identifying Convertible Top Fabric & Applying Marking To Making Tape At Front And Back Directly Below Roof Frame Seal
Courtesy of VOLKSWAGEN UNITED STATES, INC.

NOTE:

- **Raise convertible top fabric - 1 - in place.**

- Apply a marking - **arrow** - to making tape at front and back directly below roof frame seal.
- Open door.
- Measure distance between marking and upper end of window.

- Front immersion depth: max. 5 mm.
- Rear immersion depth: max. 7 mm.

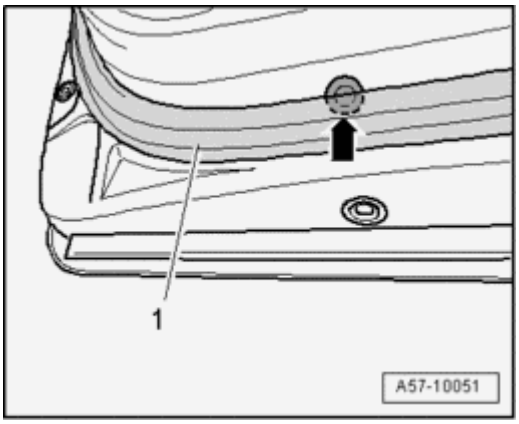


Fig. 67: Window Immersion Depth, Adjusting
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Window immersion depth, adjusting

- Lower window.
- Remove front and rear rubber stops - **arrow** - at bottom of door.
- Insert a thin 5 mm hex socket head wrench through opening on door.

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- Door seal - **1** - does not need to be removed to insert hex socket head wrench.

  - Adjust front and rear window immersion depth by evenly turning both lifting units.

- Turn right = greater immersion depth.
- 1 turn corresponds to approx. 1.2 mm.

  - Seal off openings with rubber plugs.
  - Raise window and measure change.
  - Ensure window is parallel to side window, adjust if necessary --> **Side window, adjusting**.

Door hinge - assembly overview

Bottom door hinge

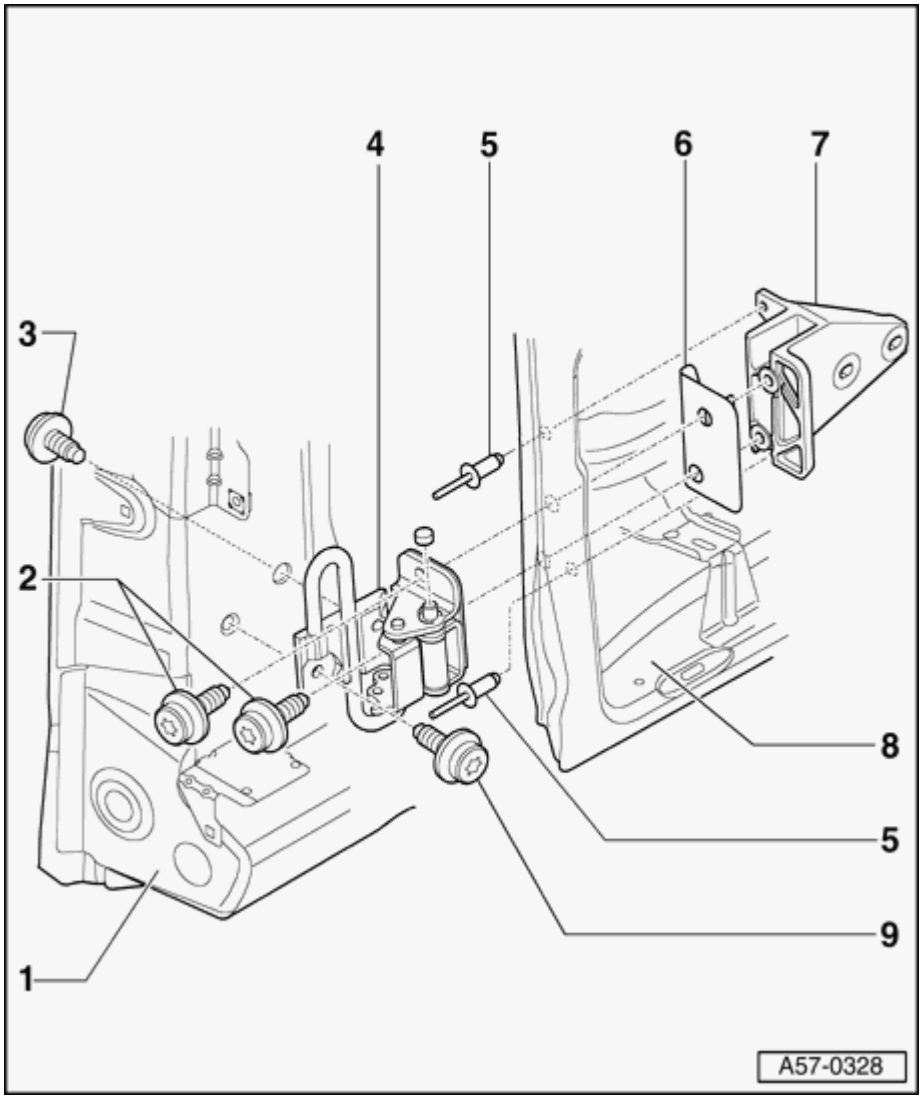


Fig. 68: Door Hinge - Assembly Overview (Bottom Door Hinge)

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Lower A-pillar

2 - Screw

- 32 Nm

3 - Screw

- 32 Nm
- Installed from vehicle interior.

4 - Bottom door hinge

- Two-part
- Mark hinge location before removal.

5 - Pop rivet

- Qty. 2

6 - Backing

7 - Impact member mount

8 - Front door

9 - Screw

- 32 Nm

Upper door hinge

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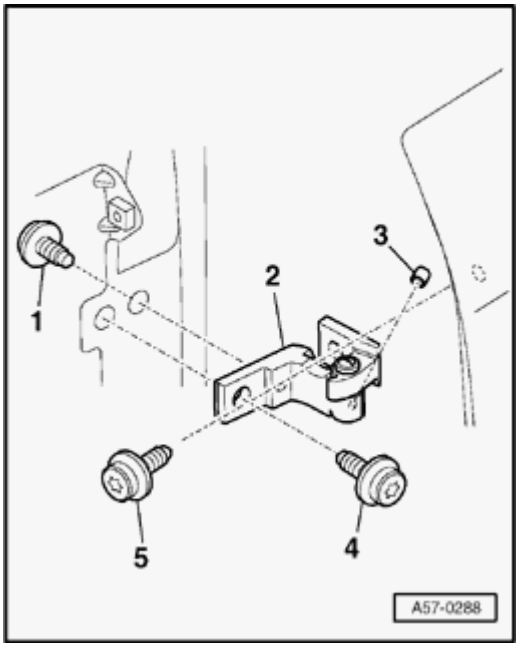


Fig. 69: Door Hinge - Assembly Overview (Upper Door Hinge)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1. Bolt (installed from inside of vehicle) (32 Nm)
2. Upper door hinge
3. Cover cap
4. Screw (32 Nm)
5. Screw (32 Nm)

Front door, adjusting

Panel gap dimensions

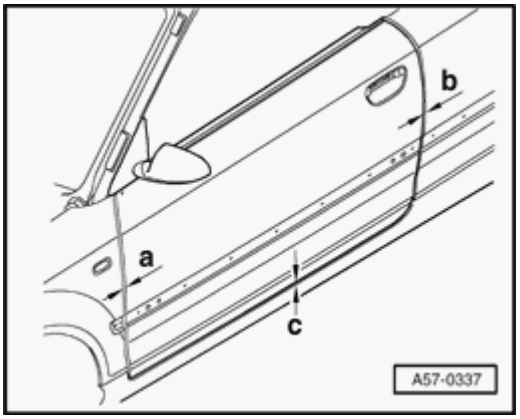


Fig. 70: Panel Gap Dimensions
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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NOTE:

- **Panel gap dimensions can be checked with Adjusting Gauge 3371.**
- **Dimension - a - = 3.5 mm ± 0.5 mm.**
- **Dimension - b - = 3.5 mm ± 0.5 mm.**
- **Dimension - c - = 5.0 mm ± 1 mm.**

Door handle and door lock - assembly overview

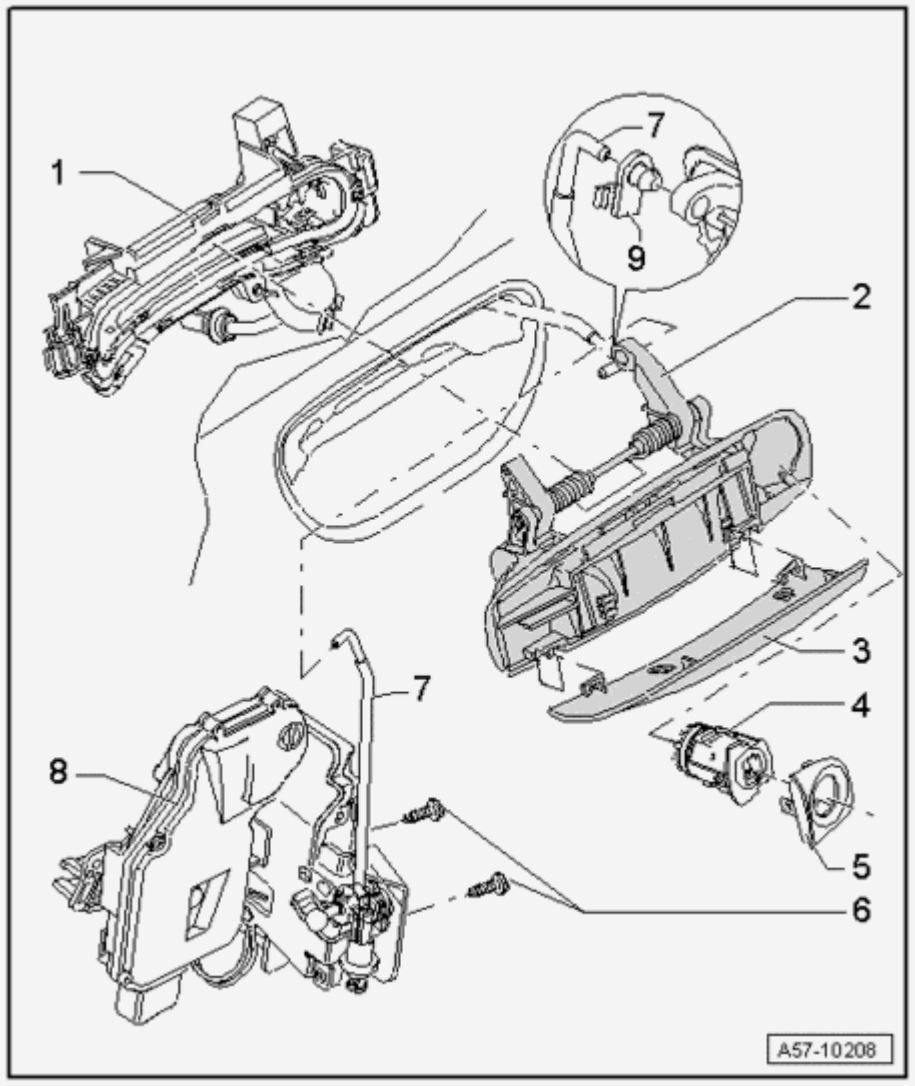


Fig. 71: Door Handle And Door Lock - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Door handle mount

- Removing --> **Door handle, removing and installing**.

2 - Door handle

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- Removing --> **Door handle, removing and installing**.

3 - Door handle trim

- Removing --> **Door handle trim, removing and installing**.

4 - Lock cylinder

- Assembly overview --> **Lock cylinder - assembly overview**.
- Removing --> **Lock cylinder, removing and installing**.

5 - Lock cylinder cover

- To remove, remove lock cylinder and unclip cover.

6 - Screw

- 20 Nm

7 - Operating rod

- Clip into door lock **Engaging operating rod in door lock**

8 - Door lock

- Assembly overview up to model year 2005 --> **Door lock (up to model year 2005) - assembly overview**.
- Assembly overview from model year 2006 --> **Door lock (from model year 2006) - assembly overview**.
- Removing, up to model year 2005 --> **Door lock (up to model year 2005) - assembly overview**.
- Removing, from model year 2006 --> **Door lock (from model year 2006), removing and installing**.

Lock cylinder - assembly overview

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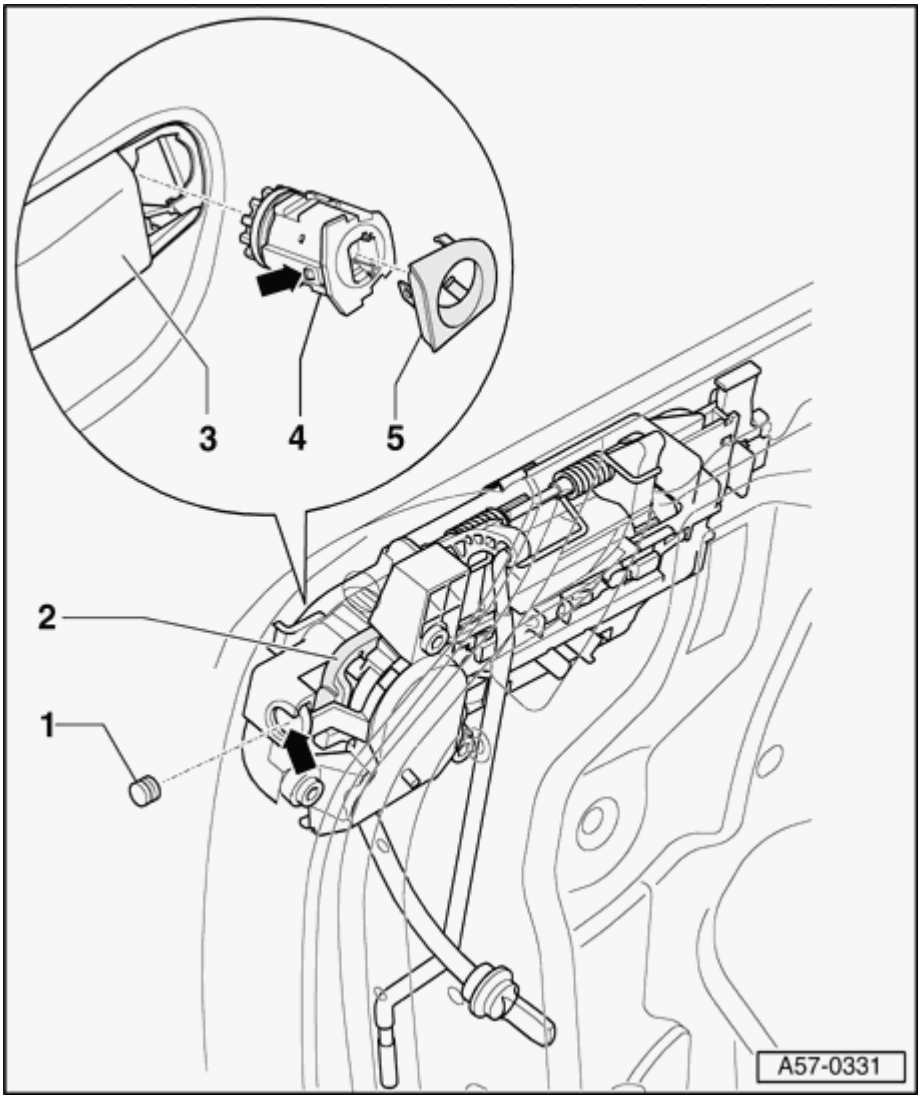


Fig. 72: Lock Cylinder, Lock Cylinder Cover Cap Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Cover cap

- Pry out

2 - Securing bracket

- Engages in groove on lock cylinder.

3 - Door handle

- Removing --> **Door handle, removing and installing**.

4 - Lock cylinder

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- Removing --> **Lock cylinder, removing and installing**.

5 - Lock cylinder cover cap

- Removing --> **Lock cylinder cover cap, removing and installing**.

Lock cylinder, removing and installing

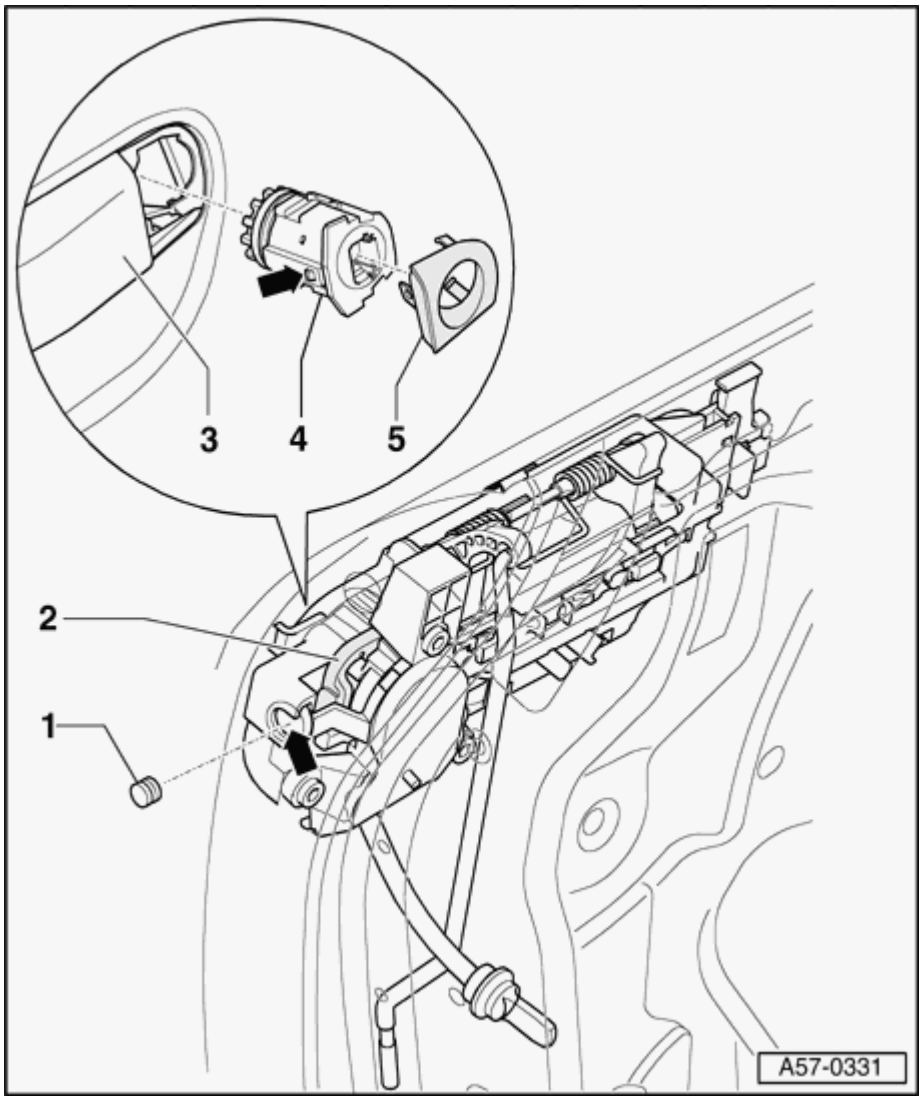


Fig. 73: Lock Cylinder, Lock Cylinder Cover Cap Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Open drivers door and pry out cover cap - **1** -.
- Remove bolt - **arrow** - counter-clockwise as far as stop.

This moves the securing clip - **2** - back and releases lock cylinder.

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- Remove lock cylinder - **4** - from door handle.

Installation is reverse of removal.

Lock cylinder cover cap, removing and installing

Removing

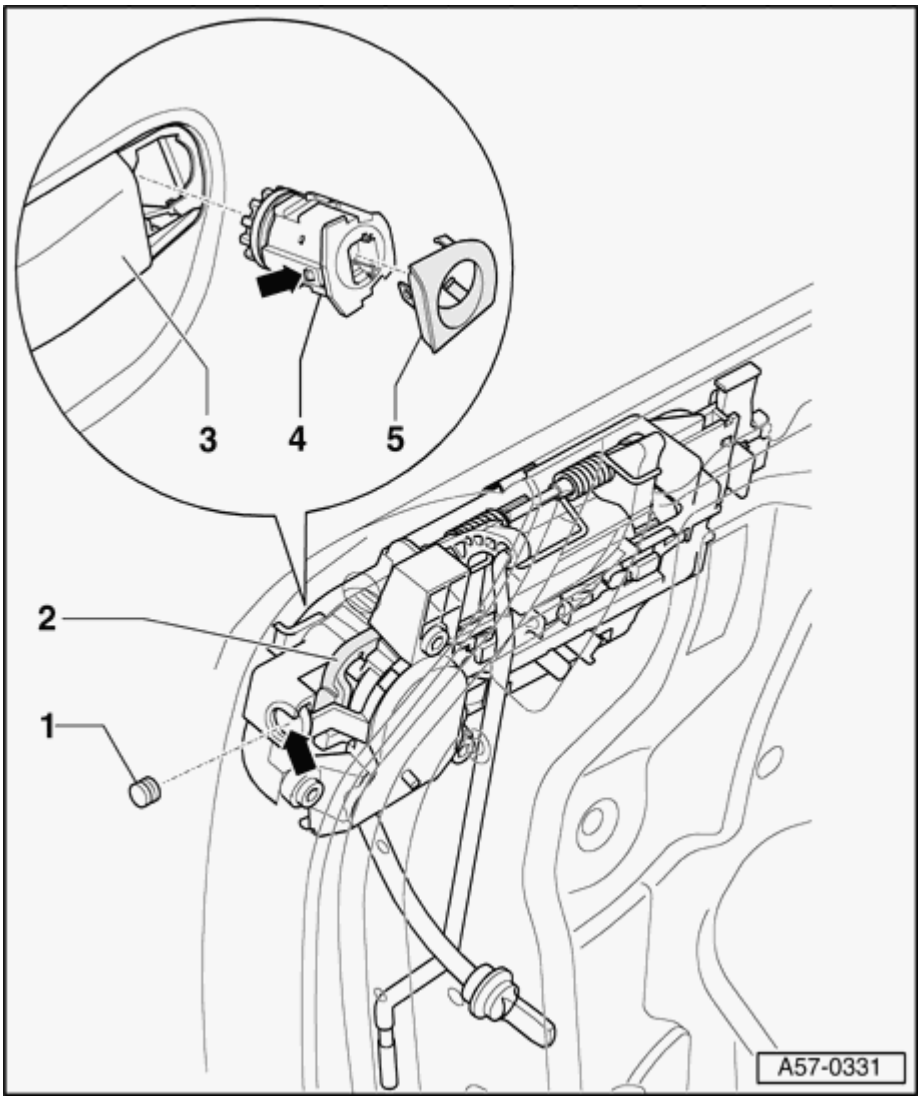


Fig. 74: Lock Cylinder, Lock Cylinder Cover Cap Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove lock cylinder - **4** - --> **Lock cylinder, removing and installing**.

- Carefully loosen hooks from retainer and remove cover cap sideways toward rear from locking pins.

Installing

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- Insert brace with square hole on pins on housing.
- Press cover cap onto housing until locking hooks engage.

Door handle, removing and installing

Remove door trim -->

- **70 - INTERIOR TRIM**
- **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

.

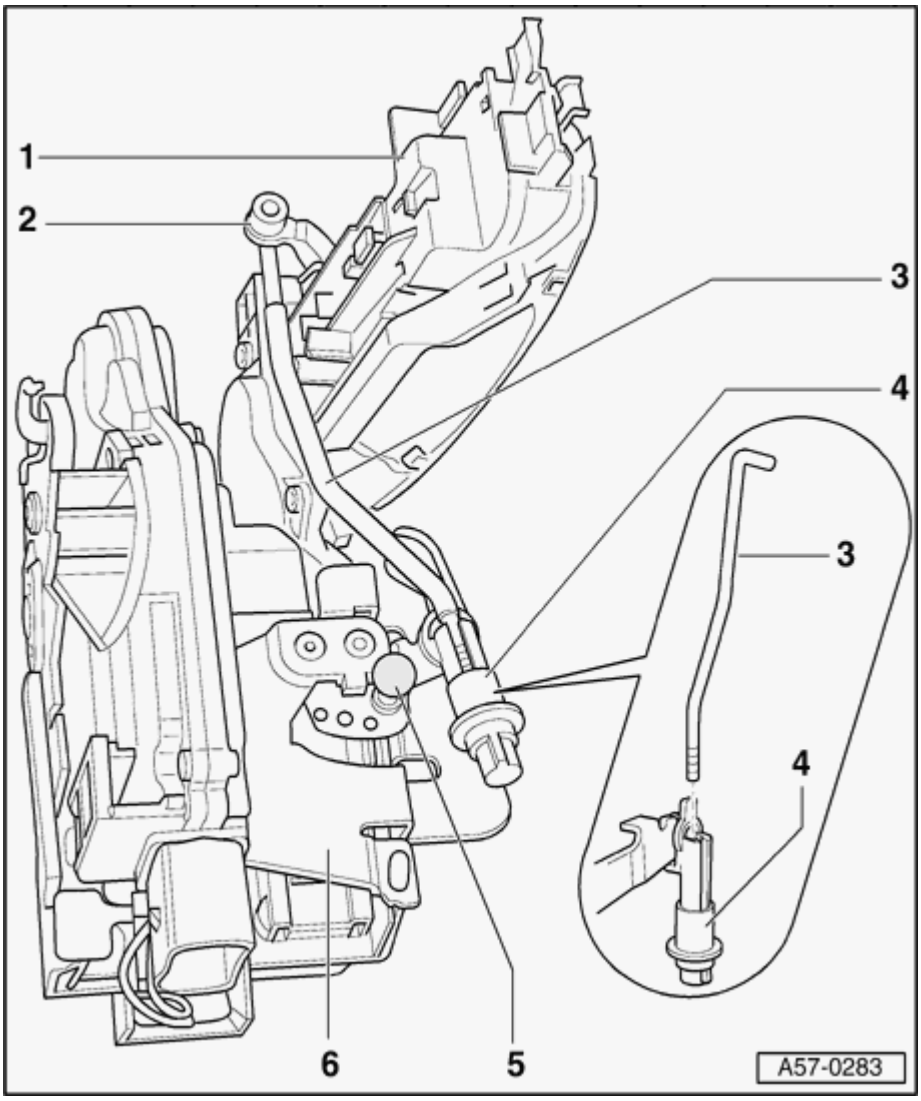


Fig. 75: Door Handle Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Disengage operating rod - **3** - on clip - **2** -.

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- Remove lock cylinder --> **Lock cylinder - assembly overview**.

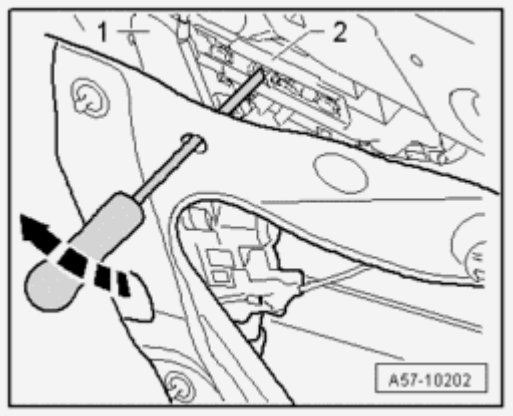


Fig. 76: Inserting Screwdriver Through Door Plate And Releasing Slider From Door Handle
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Insert screwdriver through door plate and release slider - **2** - in - **direction of arrow** - from door handle - **1** -.
- Remove door handle.

Door handle trim, removing and installing

Remove door handle --> **Door handle, removing and installing**.

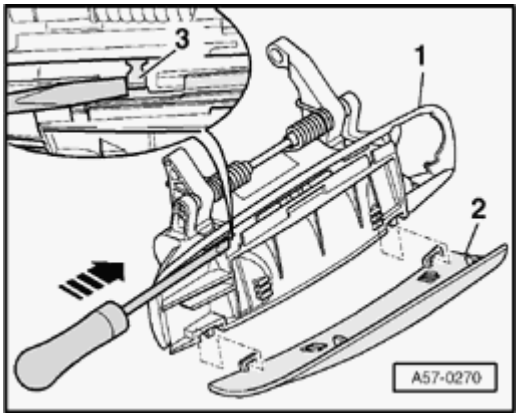


Fig. 77: Door Handle Trim Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull door handle - **1** - up and slide retainer - **3** - out lengthwise with a small screwdriver.
- Unlatch upper trim - **2** - sideways and remove it downward from door handle.

Installation is reverse of removal.

Door lock (up to model year 2005) - assembly overview

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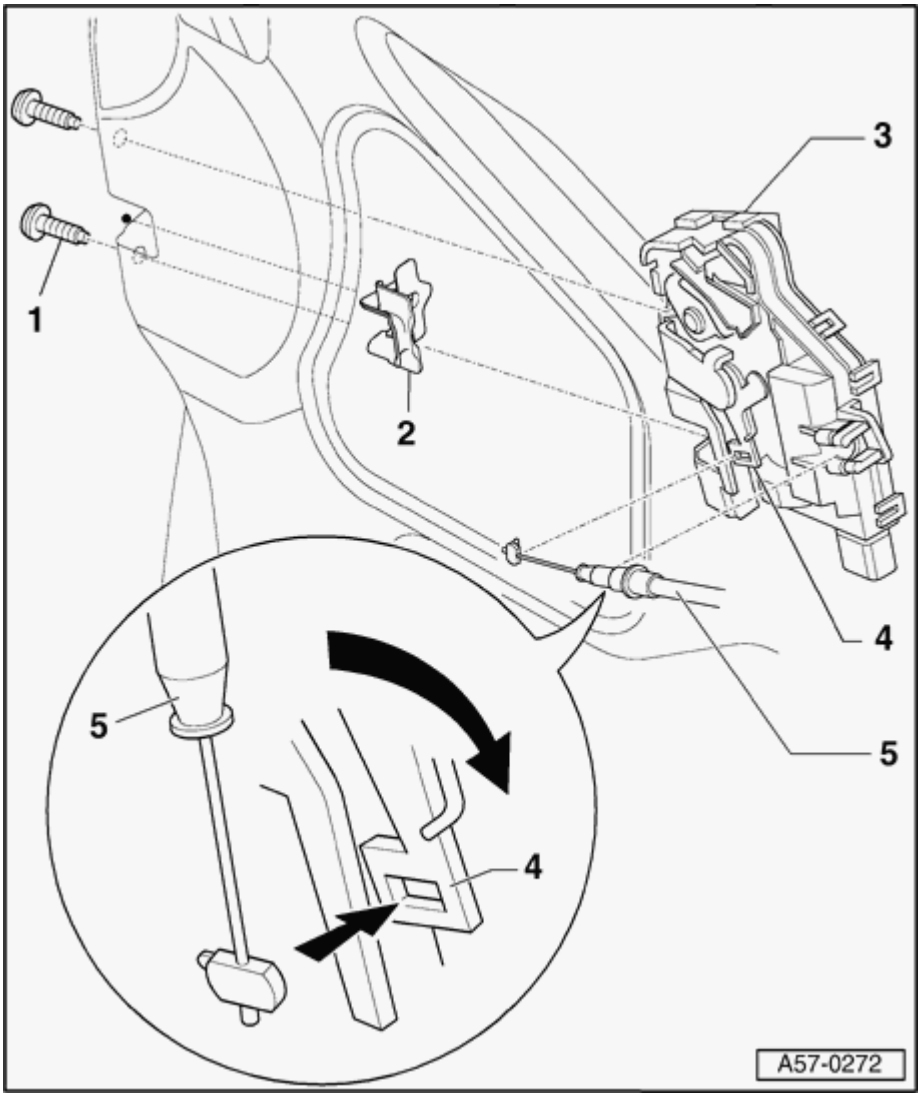


Fig. 78: Door Lock (Up To Model Year 2005) Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Screw

- M8
- 20 Nm

2 - Backing

3 - Door lock

- Removing --> **Door lock (up to model year 2005), removing and installing**.

4 - Release lever

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5 - Inside door release mechanism release

Door lock (up to model year 2005), removing and installing

Removing

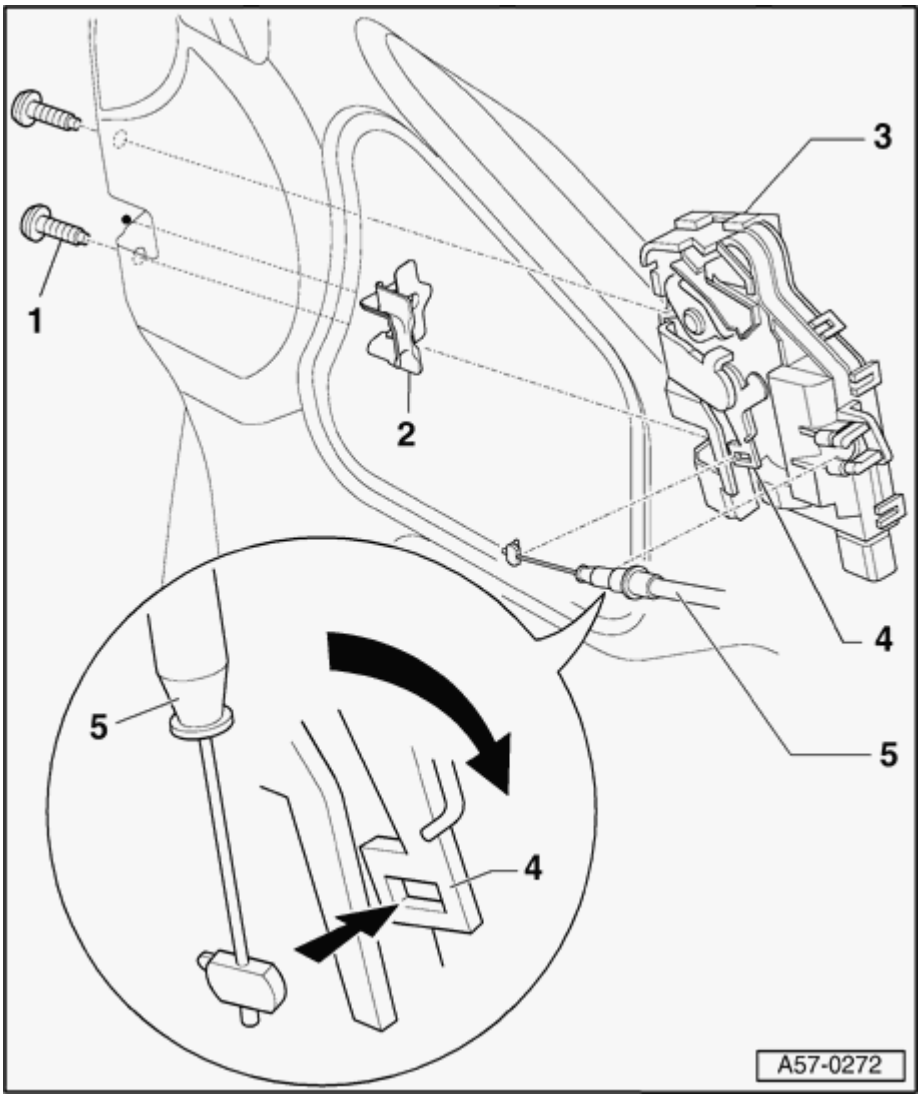


Fig. 79: Door Lock (Up To Model Year 2005) Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove door trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .
- Remove door lock cover cap.
- Remove window regulator rear brace --> **Window regulator - assembly overview**.

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- Disconnect electrical harness connector at door lock.
- Unclip cable from inside door release mechanism - **5** - on door lock, rotate it 90° and remove it from release lever - **4** -.
- If the same door lock is installed again, disengage operating rod at door handle.
- If door lock is replaced, unclip operating rod from door lock at casing **Engaging operating rod in door lock**.
- Remove bolts - **1** - and remove door lock.

Installing

Installation is reverse of removal.

Engaging operating rod in door lock

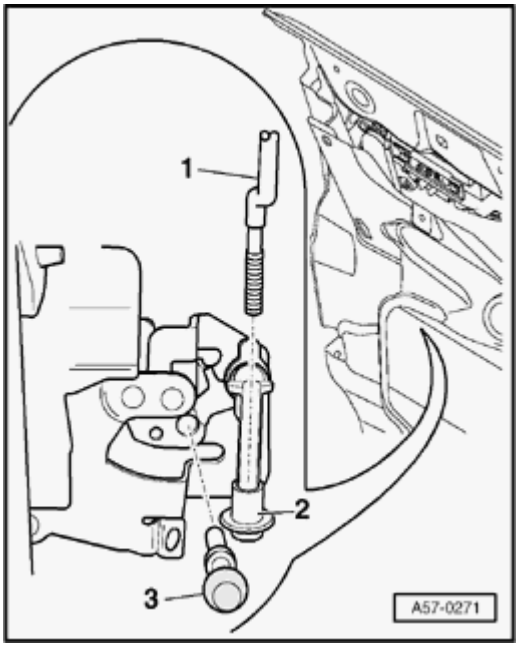


Fig. 80: Engaging Operating Rod In Door Lock
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- When installing a new door lock, clip operating rod - **1** - into casing.
- Move slide - **2** - of casing upward to engage operating rod.
- Pull securing pin - **3** - out of door lock.

Tightening torques --> **Door lock (up to model year 2005) - assembly overview**.

Door lock (from model year 2006) - assembly overview

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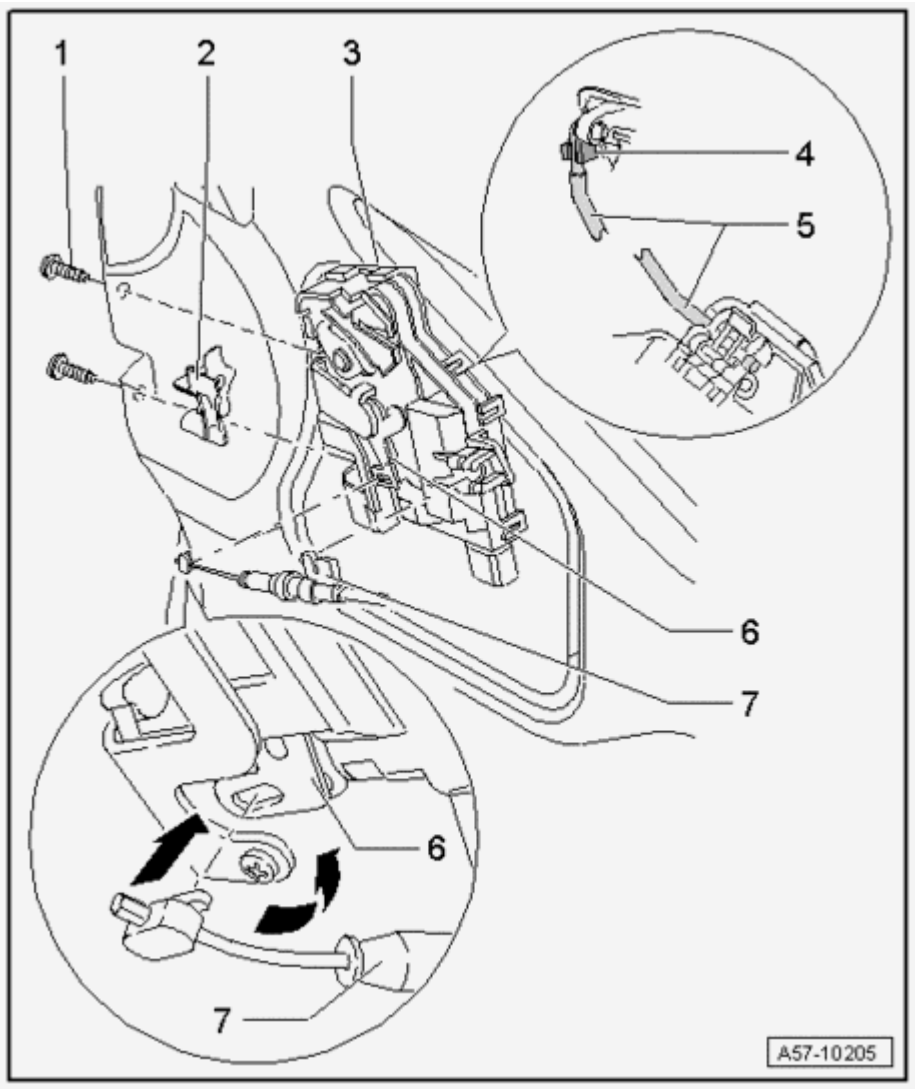


Fig. 81: Door Lock (From Model Year 2006) Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Screw

- M8
- 20 Nm

2 - Backing

3 - Door lock

- Removing --> **Door lock (from model year 2006), removing and installing**.

4 - Clip

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5 - Operating rod

6 - Release lever

7 - Inside door release mechanism release

Door lock (from model year 2006), removing and installing

Removing

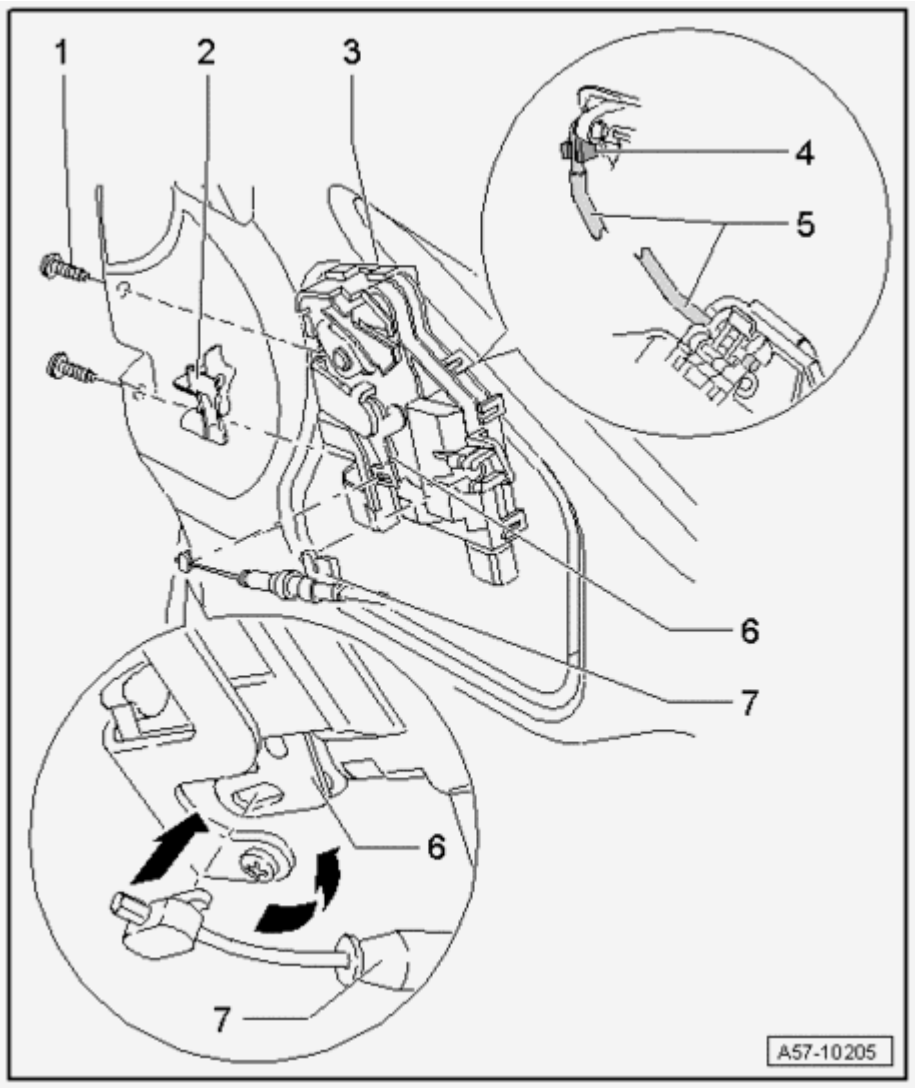


Fig. 82: Door Lock (From Model Year 2006) Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove door trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

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- Remove door lock cover cap.
- Remove window regulator rear brace --> **Window regulator - assembly overview**.
- Disconnect electrical harness connector at door lock.
- Disengage operating rod to door handle - **5** - at upper clip - **4** -.

NOTE:

- **If door lock is replaced, operating rod on lock must be adjusted --> Door lock operating rod (from model year 2006), adjusting.**

- Remove bolts - **1** - and remove door lock - **3** -.

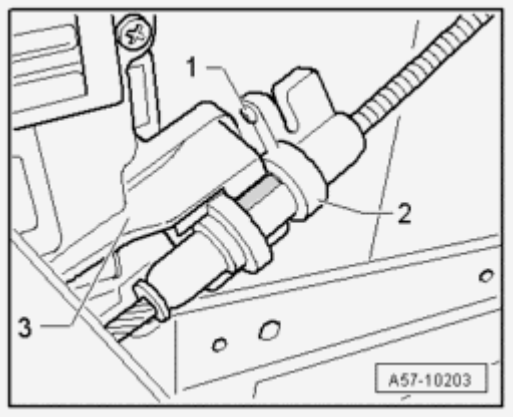


Fig. 83: Raising Locking Pin Slightly, Rotating Guide 90° And Removing It Sideways From Door Lock
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Raise locking pin - **1** - slightly, rotate guide - **2** - 90° and remove it sideways from door lock - **3** -.
- Disengage door inside release mechanism cable at release lever.

Installing

Installation is reverse of removal.

Tightening torques --> **Door lock (from model year 2006) - assembly overview**.

Door lock operating rod (from model year 2006), adjusting

The door handle is adjusted correctly when it contacts handle molding and can be operated without noticeable play.

- Door trim removed.
- Rear window regulator rail removed.

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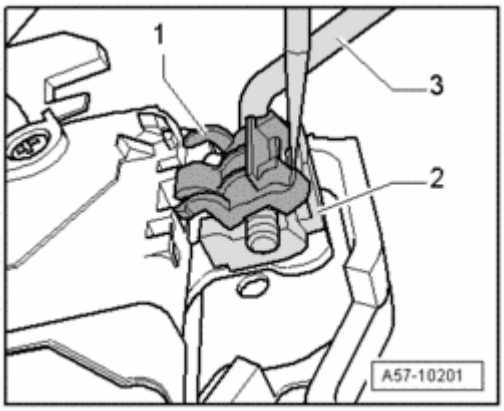


Fig. 84: Door Lock Operating Rod (From Model Year 2006), Adjusting
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pry out clip - **1** - on opening lever - **2** -.
- Move operating rod - **3** - and check adjustment.

REAR WINDOW REGULATOR

Rear window regulator - assembly overview

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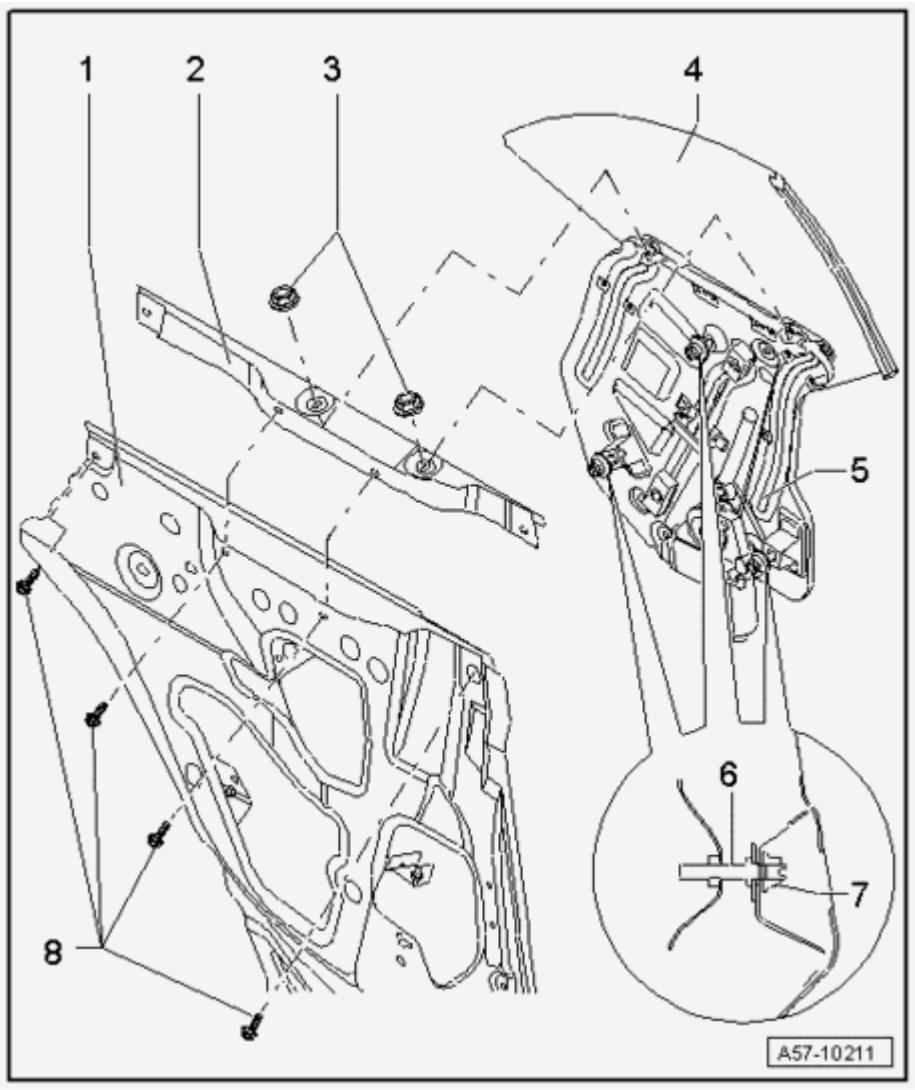


Fig. 85: Rear Window Regulator - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Side panel

2 - Retaining strip

3 - Nuts

- 8 Nm

4 - Side window

- Removing and installing --> **Side windows - assembly overview**.

5 - Window regulator

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- Removing --> **Rear window regulator, removing and installing**.

6 - Adjustment screw

- 3x
- 20 Nm
- Side Window Installation Tool V.A.G 1739 is needed for adjusting.
- Angle of side window can be adjusted using these screws.

7 - Nut

- Union nut
- 20 Nm

8 - Screw

- Qty. 4
- 8 Nm

Rear window regulator, removing and installing

- Remove rear side trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

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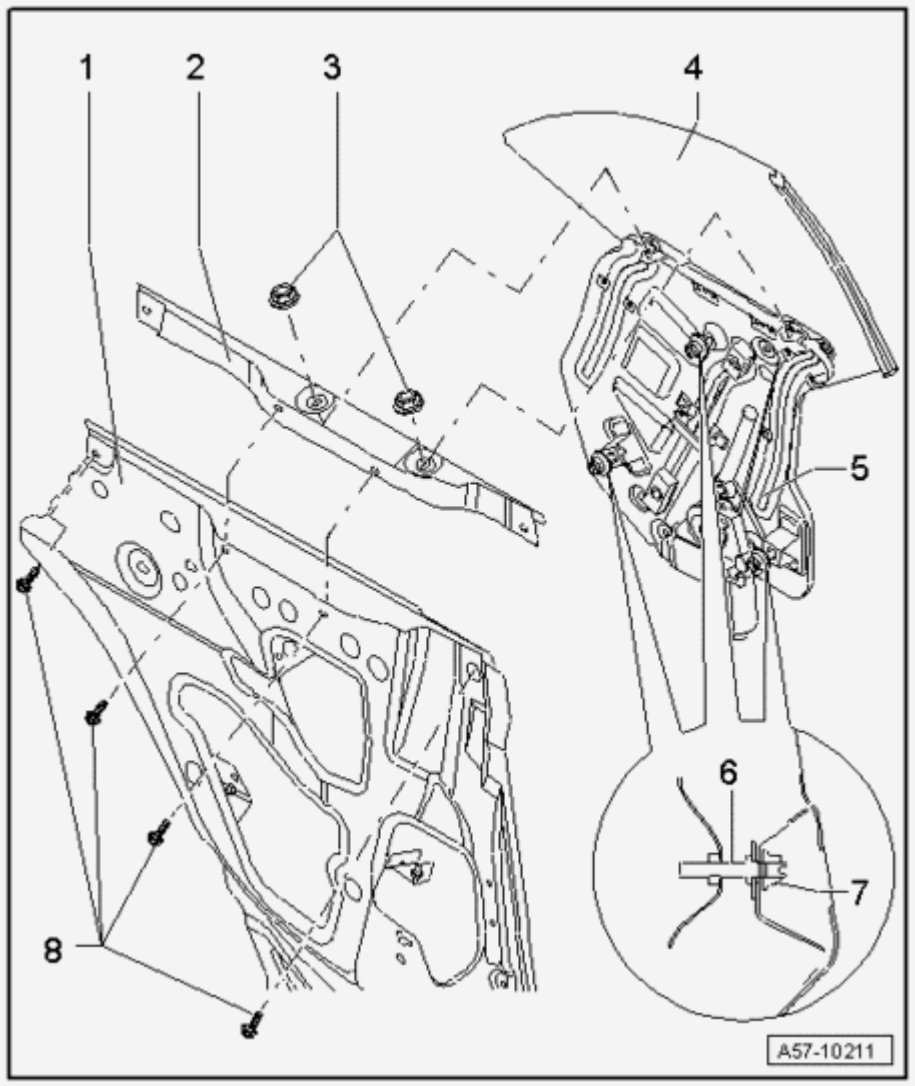


Fig. 86: Rear Window Regulator Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove window shaft strips --> **Window shaft strips**.
- Mark position of nuts - **3** - , adjusting screws - **6** - and bolts - **8** -.
- Remove nuts - **3** -.
- Remove bolts - **8** - and remove cover - **2** -.
- Loosen Convertible Top Control Module J256 on right side of vehicle --> **Convertible Top Control Module J256 , removing**.
- Loosen nuts - **7** - from adjusting screws - **5** -.

NOTE:

- **The lower nuts - 6 - can remain on the adjusting screws - 5 - , the upper ones must be removed.**

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- Disconnect window regulator motor connector.
- Remove window regulator - **5** - from side panel - **1** -.

Installation is reverse of removal.

Tightening torques --> **Rear window regulator - assembly overview**.

Side windows - assembly overview

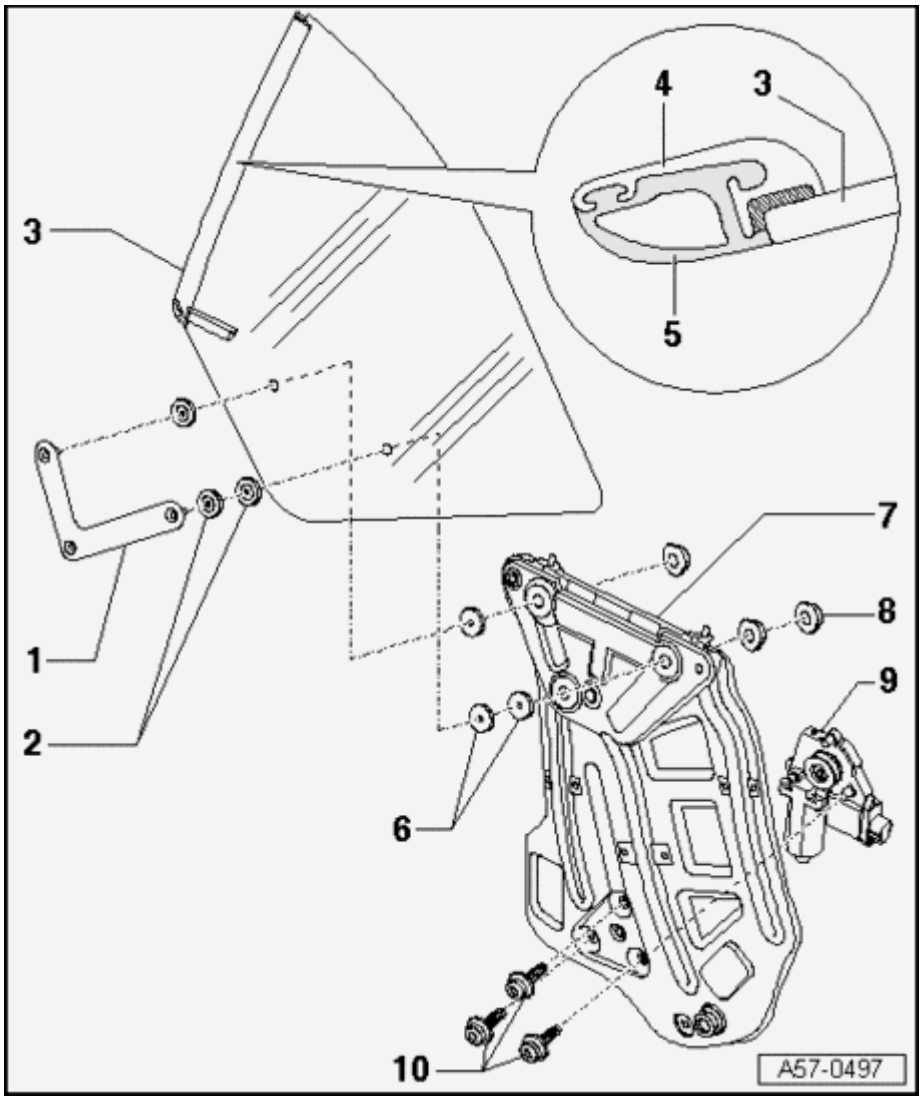


Fig. 87: Side Window Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Angle bracket

2 - Spacer discs

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- Note installation position **Spacer installation location**.

3 - Side window

- Removing --> **Side window, removing and installing**.
- Adjusting --> **Side window, adjusting**.

4 - Seal retaining strip

- No replacement part.

5 - Gasket

- Installing.

6 - Washers

- Must engage on angle bracket retaining pins when pressing on.

7 - Window regulator

- Removing --> **Rear window regulator - assembly overview**.

8 - Nut

- 6 Nm

9 - Window regulator motor

- Can be removed and installed with window regulator in any position.
- When removing, cable tensioner must not be loosened from window regulator.
- Removing --> **Motor for window regulator, removing and installing**.

10 - Screw

- 4.5 Nm

Spacer installation location

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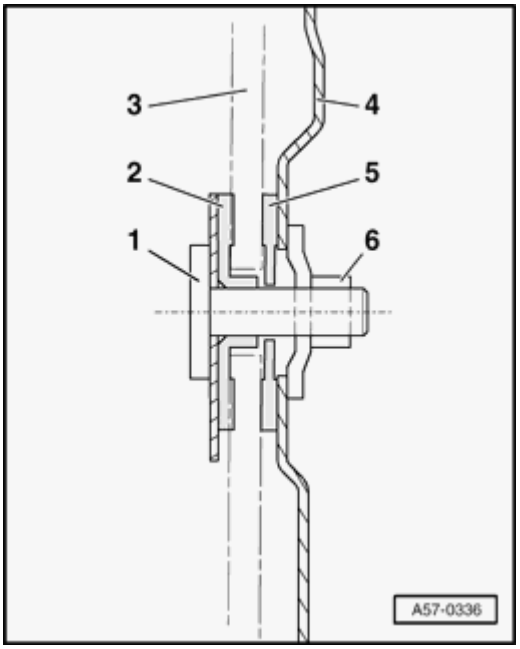


Fig. 88: Spacer Installation Location
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1. Angle bracket
2. Spacer plate
3. Side window
4. Window regulator
5. Spacer plate
6. Nut

Side window, removing and installing

Removing

- Remove rear window regulator --> **Rear window regulator, removing and installing**.

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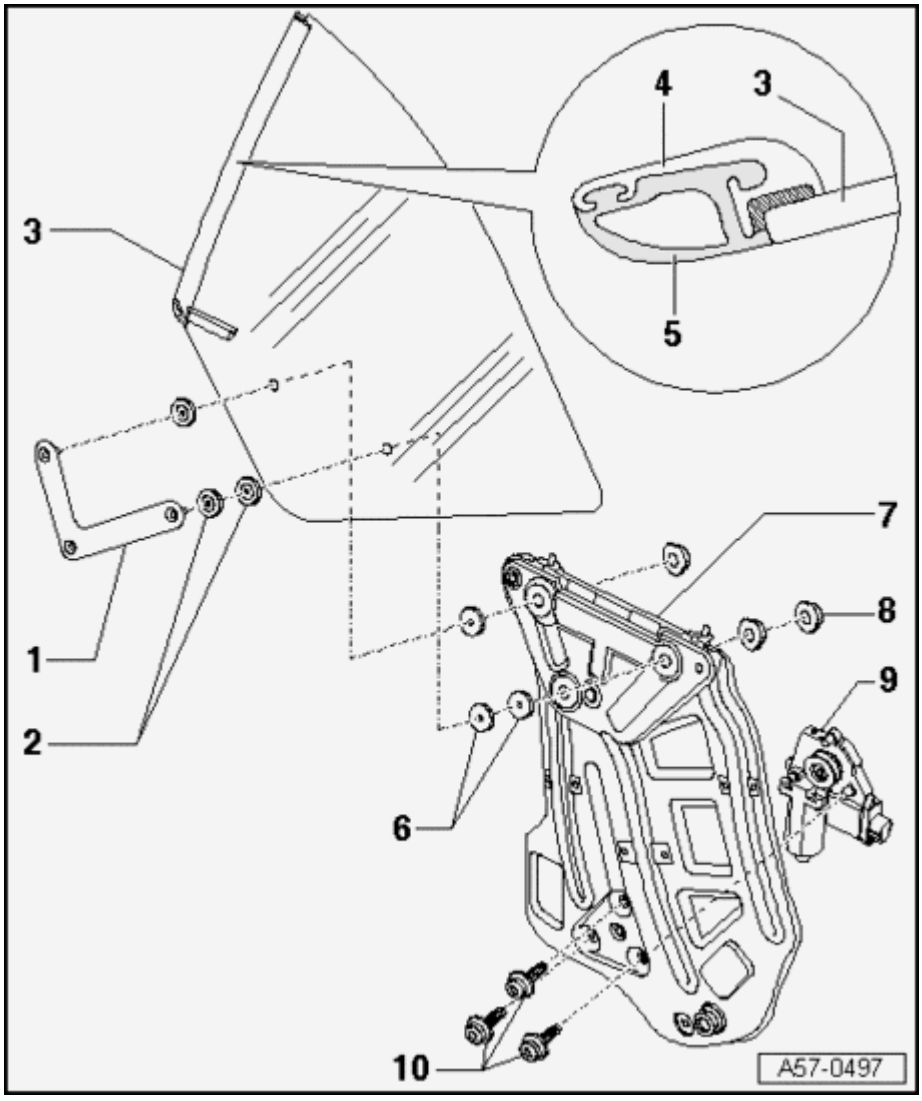


Fig. 89: Side Window Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Mark position of side window - **3** - to window regulator - **7** -.
- Remove nuts - **8** -.
- Remove side window - **3** - together with angle bracket - **1** - , spacers - **2** - and washers - **6** -.

Installing

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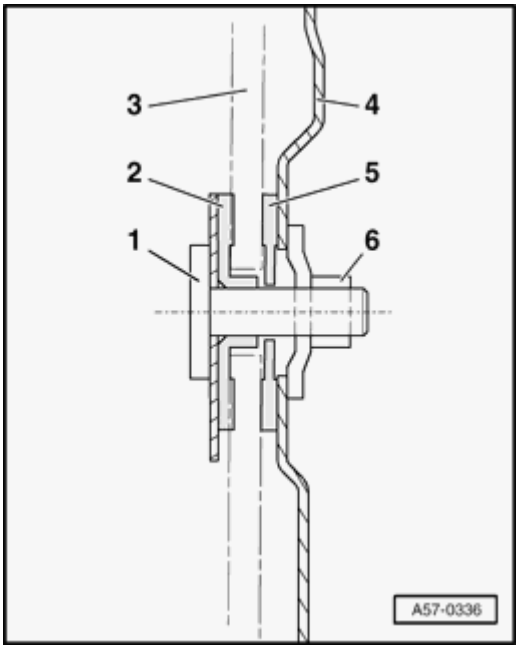


Fig. 90: Spacer Installation Location
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Place spacer - **2** - as shown on angle bracket pins - **1** - and insert pre-assembled side window - **3** - in window regulator - **4** -.
- Press window - **5** - onto pins from rear side and tighten nut.

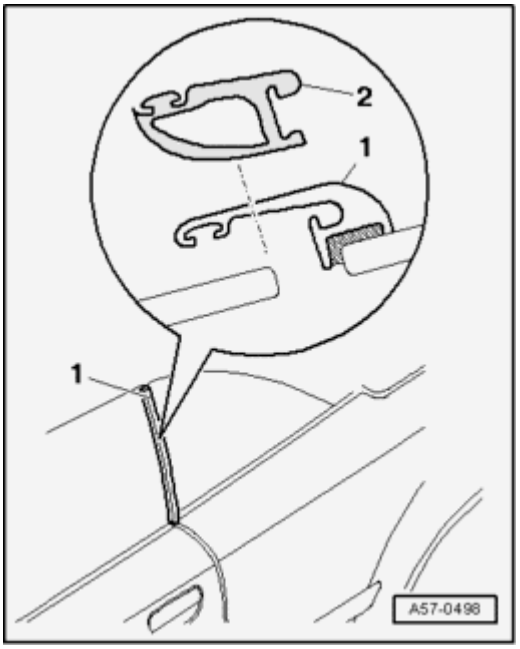


Fig. 91: Coating New Side Window Seal With Lubricant & Inserting Upper Seal In Retaining Strip
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Coat new side window seal - **2** - with lubricant (e.g. soap solution).

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- Insert upper seal in retaining strip - **1** - and pull it down.

- Seal must be flush with retaining strip at top.

Further installation is performed in the reverse order of removal.

Tightening torques --> **Side windows - assembly overview**.

Motor for window regulator, removing and installing

- Remove rear side trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

.

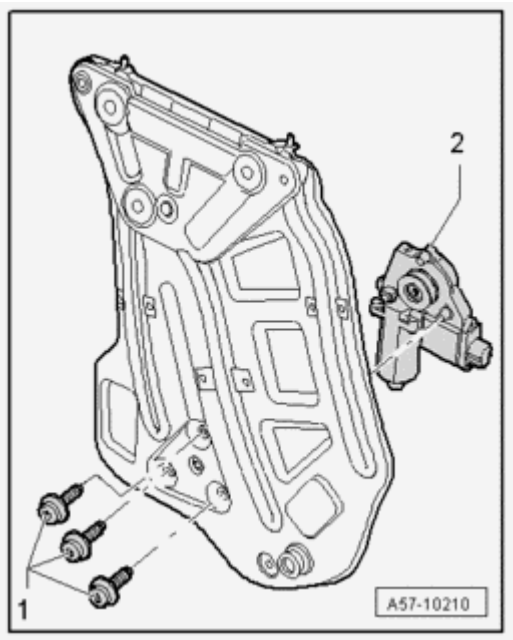


Fig. 92: Removing Bolts And Carefully Prying Motor Off Tensioner
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts - **1** - and carefully pry motor - **2** - off tensioner.

NOTE:

- **When removing, cable tensioner must not be loosened from window regulator.**

Installation is reverse of removal.

Tightening torques --> **Side windows - assembly overview**.

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Side window, adjusting

Special tools, testers and auxiliary items required

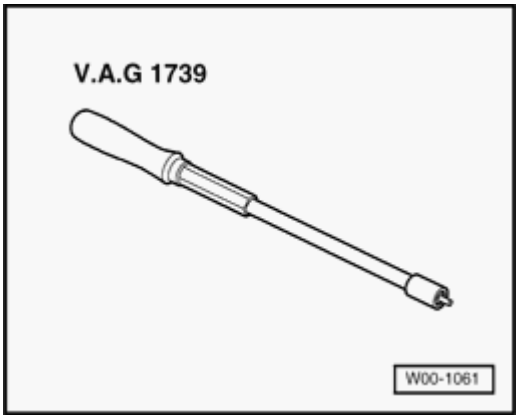


Fig. 93: Side Window Installation Tool V.A.G 1739
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Side Window Installation Tool V.A.G 1739

Distinctive features can be:

- Low window tension.
- Wind noise.
- Window rattles with convertible top open.
- Window runs poorly into roof frame seal.

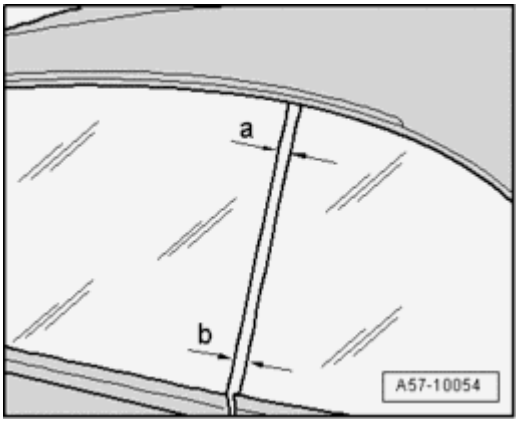


Fig. 94: Check Window To See If It Is Parallel
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Check window to see if it is parallel

- Close convertible top.

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- Raise all windows.
- Close both doors.
- Using a steel ruler, measure gap dimension between door window and side window.

- Gap must be parallel, dimension - **a** - and dimension - **b** - = 9-10 mm.
- Deviation from parallel: 0.5 mm.

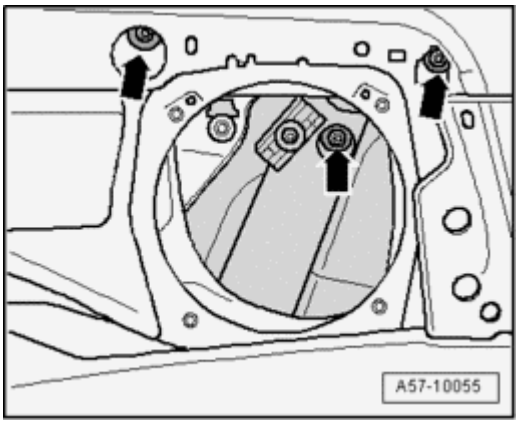


Fig. 95: Side Window Height And Parallelism, Adjusting
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Side window height and parallelism, adjusting

- Open convertible top.
- Remove side panel trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .
- Remove rear seat bench -->
  - **72 - SEAT - FRAMES**
  - **72 - SEAT - FRAMES** for BODY INTERIOR - CABRIOLET

  .
- Remove speaker cover and speaker.

- Raise all windows.
- Loosen nuts - **arrows** -.
- Adjust parallelism or side window height to door window by moving side window.
- Tighten nuts.

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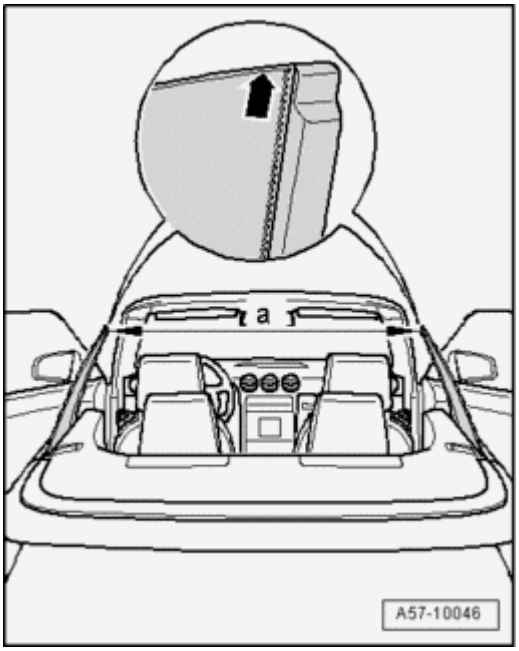


Fig. 96: Side Window Distance, Checking
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Side window distance, checking

- Open convertible top.
- Raise side windows.
- Open both doors.
- Using a tape measure on inner edge of side windows - **arrow** - , measure distance of side windows to each other.

- Distance - **a** - = 1169 -1171 mm.

NOTE:

- **Because this measurement cannot determine symmetry to both windows, the window that is still noticeable after all pre-adjustments is adjusted in case of a deviation from the dimension.**

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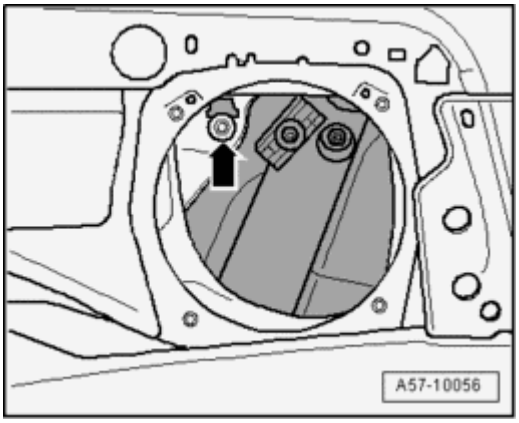


Fig. 97: Side Window Distance, Adjusting
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Side window distance, adjusting

- Remove side panel trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .
- Remove rear seat bench -->
  - **72 - SEAT - FRAMES**
  - **72 - SEAT - FRAMES** for BODY INTERIOR - CABRIOLET

  .
- Remove speaker cover and speaker.
- Loosen nut - **arrow** -.
- Adjust window angle with Side Window Installation Tool V.A.G 1739 **Angle, adjusting**.

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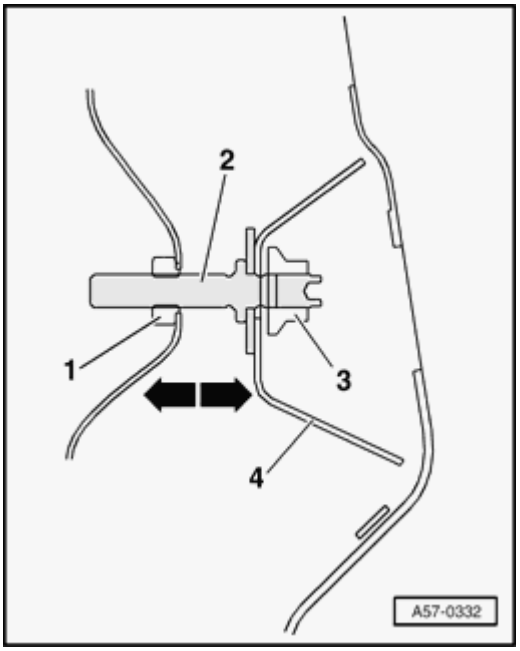


Fig. 98: Identifying Window Regulator Can Be Adjusted In Respective By Turning Adjusting Screw In/Out
Courtesy of VOLKSWAGEN UNITED STATES, INC.

NOTE:

- **The window regulator - 4 - can be adjusted in the respective - direction of arrow - by turning adjusting screw - 2 - in or out.**
- **Turning right: distance is increased.**
- **1 turn corresponds to approx. 2 mm.**

- Tighten nuts and bolts.

Tightening torques --> **Side windows - assembly overview**.

COMFORT SYSTEM

Component locations

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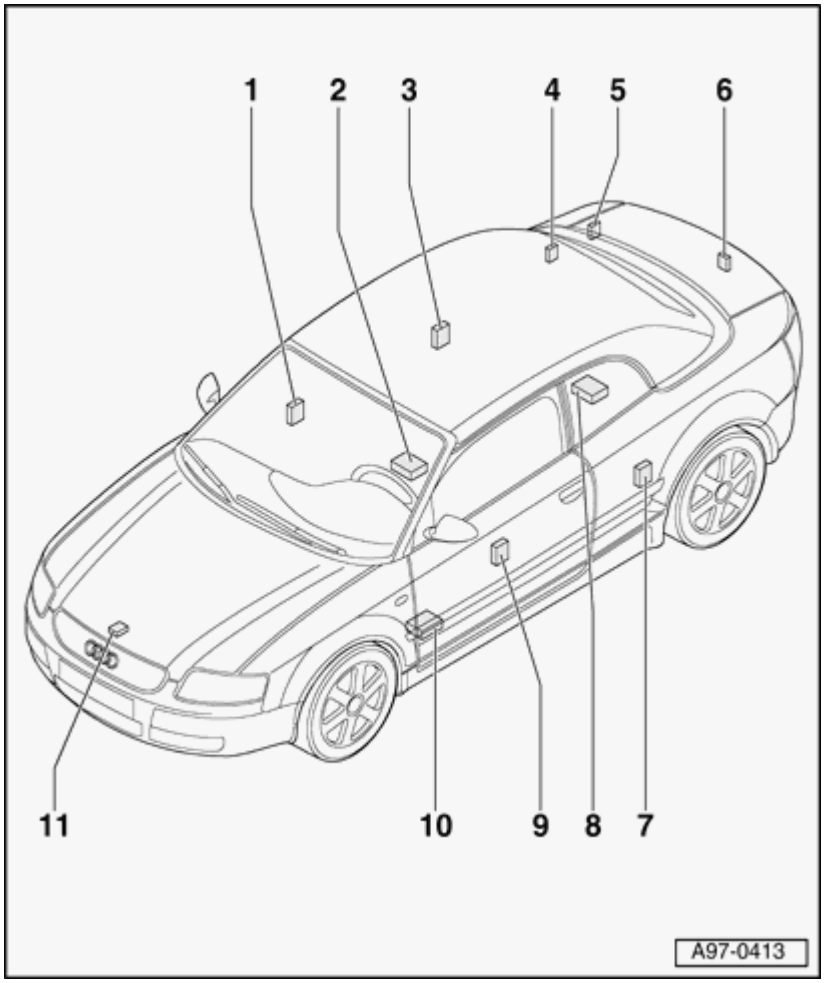


Fig. 99: Comfort System Component Locations
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Front Passengers Door Control Module J387

- Installation location --> **Front Passengers Door Control Module J387**.

2 - Radar Interior Monitoring Control Module 2 G305

- Installation location --> **Radar Interior Monitoring Control Module 2 G305**.

3 - Right Rear Window Regulator Motor V27

- Installation location --> **Right Rear Window Regulator Motor V27**.

4 - Alarm Horn H12

- Installation location --> **Alarm Horn H12**.

5 - Motor for fuel tank lid unlock V155

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- Installation location --> **Motor for fuel tank lid unlock V155**.

6 - Motor for rear lid release V139

- Installation location --> **Motor for rear lid release V139**.

7 - Left Rear Window Regulator Motor V26

- Installation location --> **Left Rear Window Regulator Motor V26**.

8 - Radar Interior Monitoring Control Module 1 G303

- Installation location --> **Radar Interior Monitoring Control Module 1 G303**.

9 - Driver s Door Control Module J386

- Installation location --> **Drivers Door Control Module J386**.

10 - Central control module for comfort system J393

- Installation location --> **Central control module for comfort system J393**.

11 - Front hood switch F266

- Installation location --> **Front hood switch F266**.

Front Passengers Door Control Module J387

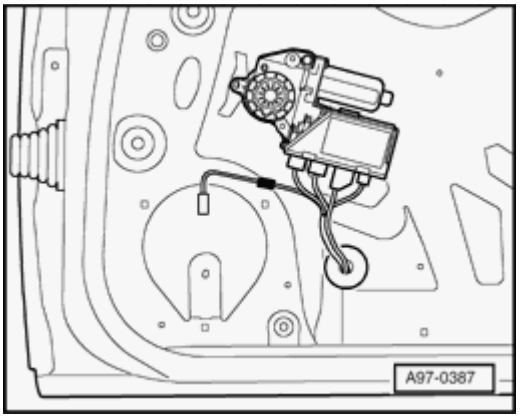


Fig. 100: Front Passengers Door Control Module J387
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Integrated in window regulator.

Radar Interior Monitoring Control Module 2 G305

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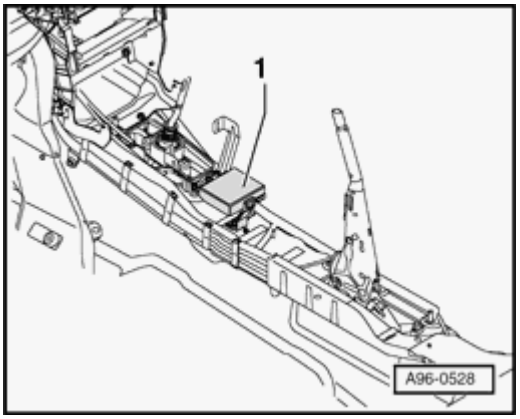


Fig. 101: Radar Interior Monitoring Control Module 2 G305
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Between front seats in center console below parking brake lever handle recess.

Right Rear Window Regulator Motor V27

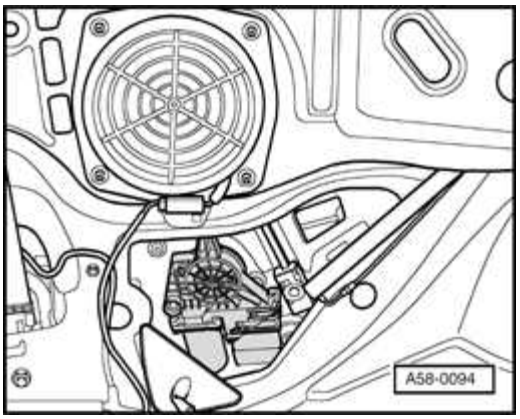


Fig. 102: Right Rear Window Regulator Motor V27
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Right rear behind side trim.

Alarm Horn H12

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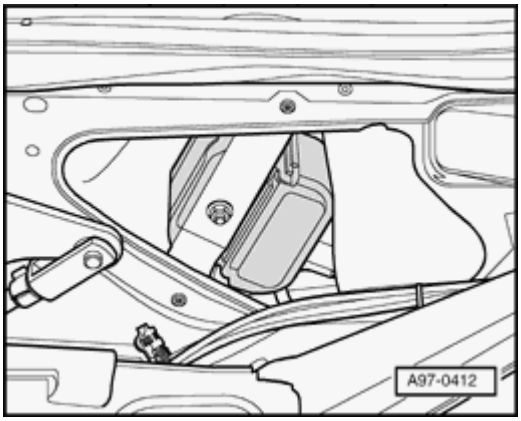


Fig. 103: Alarm Horn H12
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- In convertible top compartment at right behind side trim.

Motor for fuel tank lid unlock V155

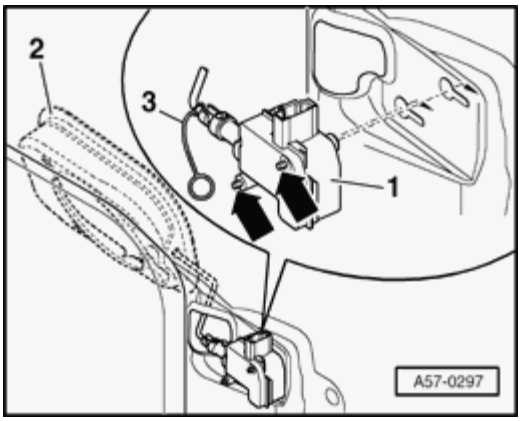


Fig. 104: Motor For Fuel Tank Lid Unlock V155
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- In luggage compartment at right behind side trim.

Motor for rear lid release V139

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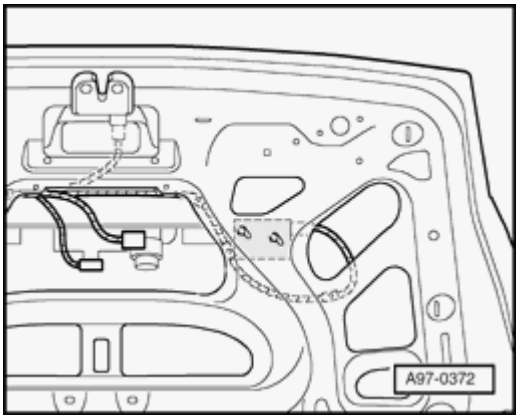


Fig. 105: Motor For Rear Lid Release V139
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- in luggage compartment on rear lid lock.

Left Rear Window Regulator Motor V26

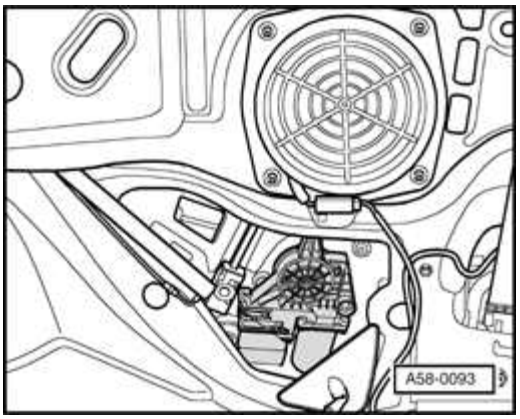


Fig. 106: Left Rear Window Regulator Motor V26
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Left rear behind side trim.

Radar Interior Monitoring Control Module 1 G303

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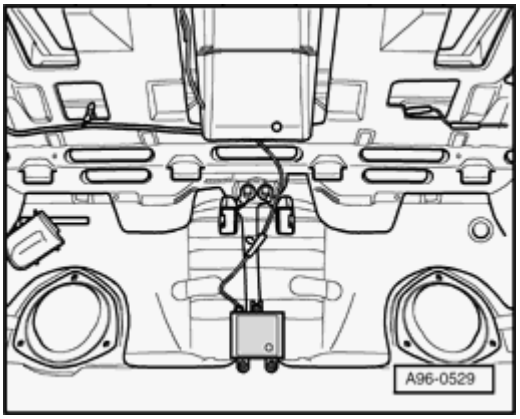


Fig. 107: Radar Interior Monitoring Control Module 1 G303
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Below rear seat bench.

Drivers Door Control Module J386

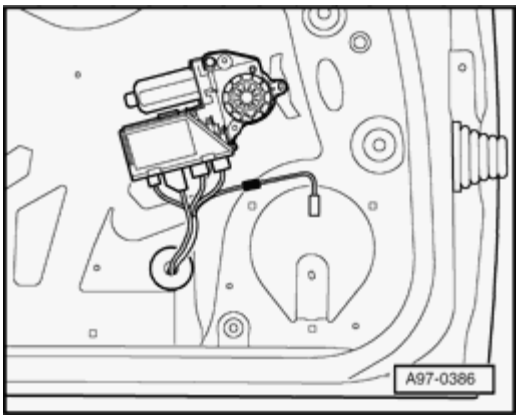


Fig. 108: Drivers Door Control Module J386
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Integrated in window regulator.

Central control module for comfort system J393

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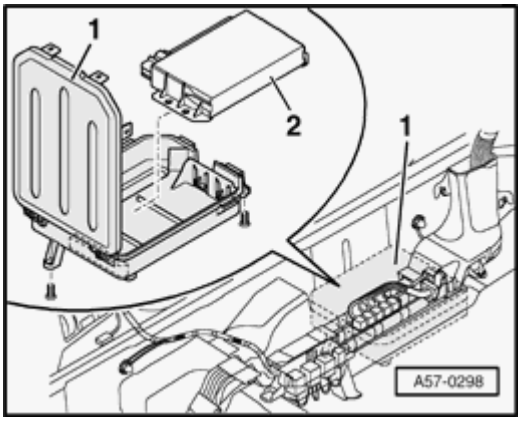


Fig. 109: Central Control Module For Comfort System J393
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- On left front sill.

Front hood switch F266

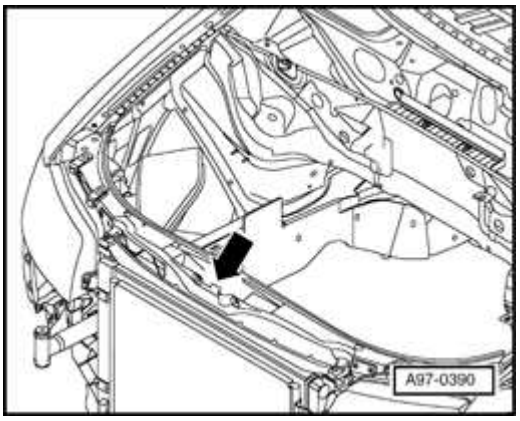


Fig. 110: Front Hood Switch F266
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- In lock carrier.

Fuel filler flap

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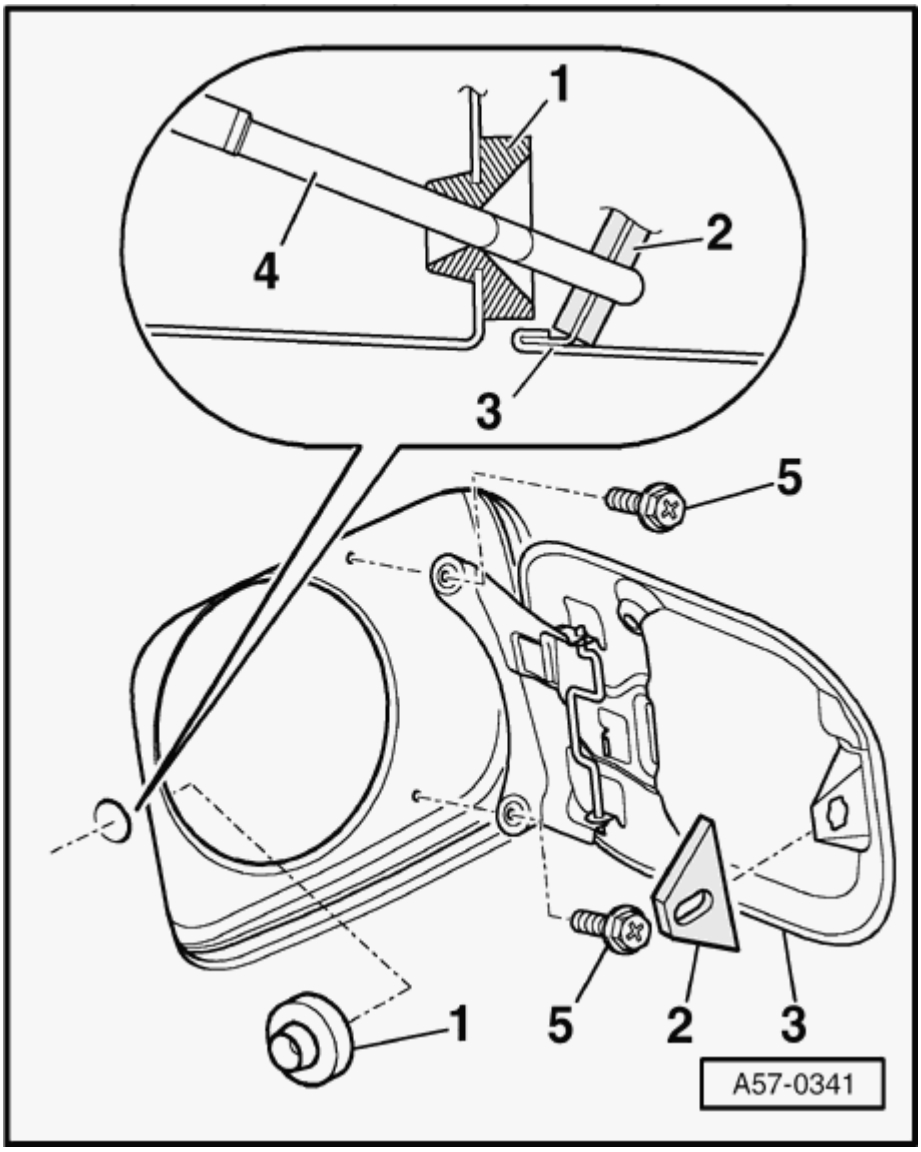


Fig. 111: Fuel Filler Flap Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

5 - Tightening torque: 1.5 Nm

Fuel Tank Lid Unlock Motor V155, removing and installing

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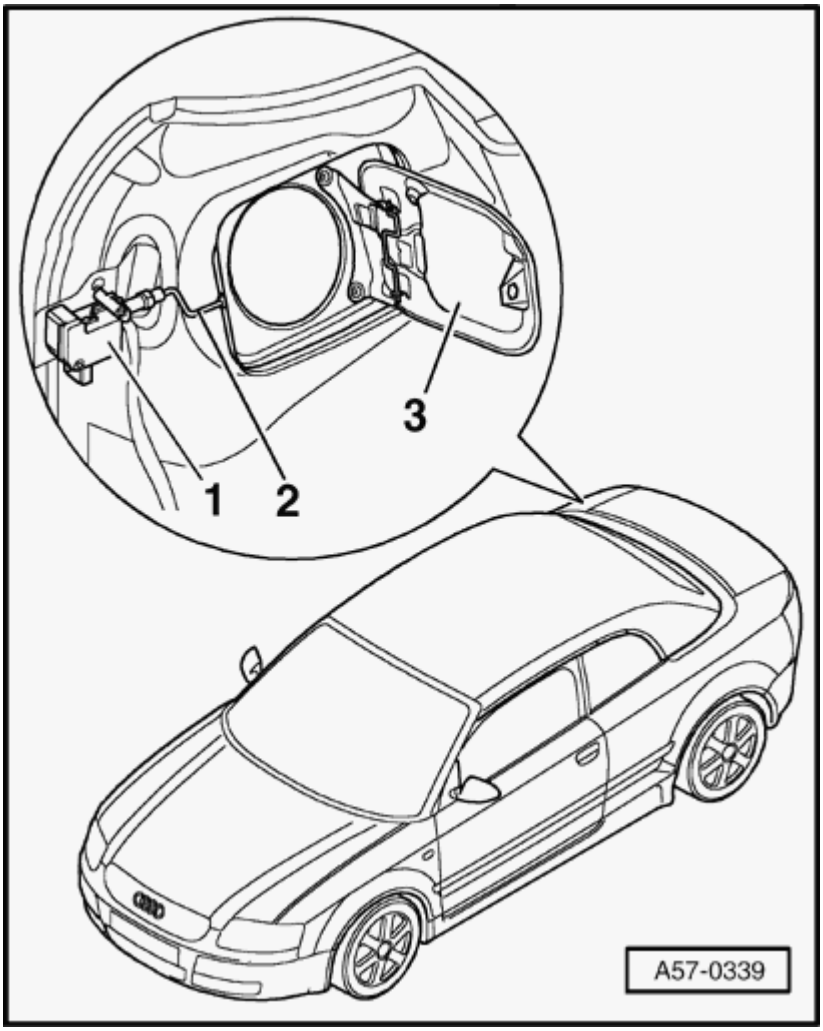


Fig. 112: Fuel Tank Lid Unlock Motor V155 Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1. Motor for fuel tank lid unlock V155
2. Locking pin
3. Fuel filler flap

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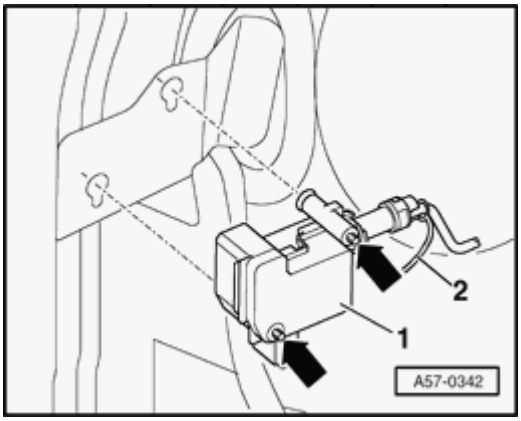


Fig. 113: Loosening Bolts Using Socket Wrench T10010, Sliding Actuator Up And Removing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Removing

- Disconnect electrical connector.
- Loosen bolts - **arrows** - using Socket Wrench T10010 , slide actuator - **1** - up and remove.

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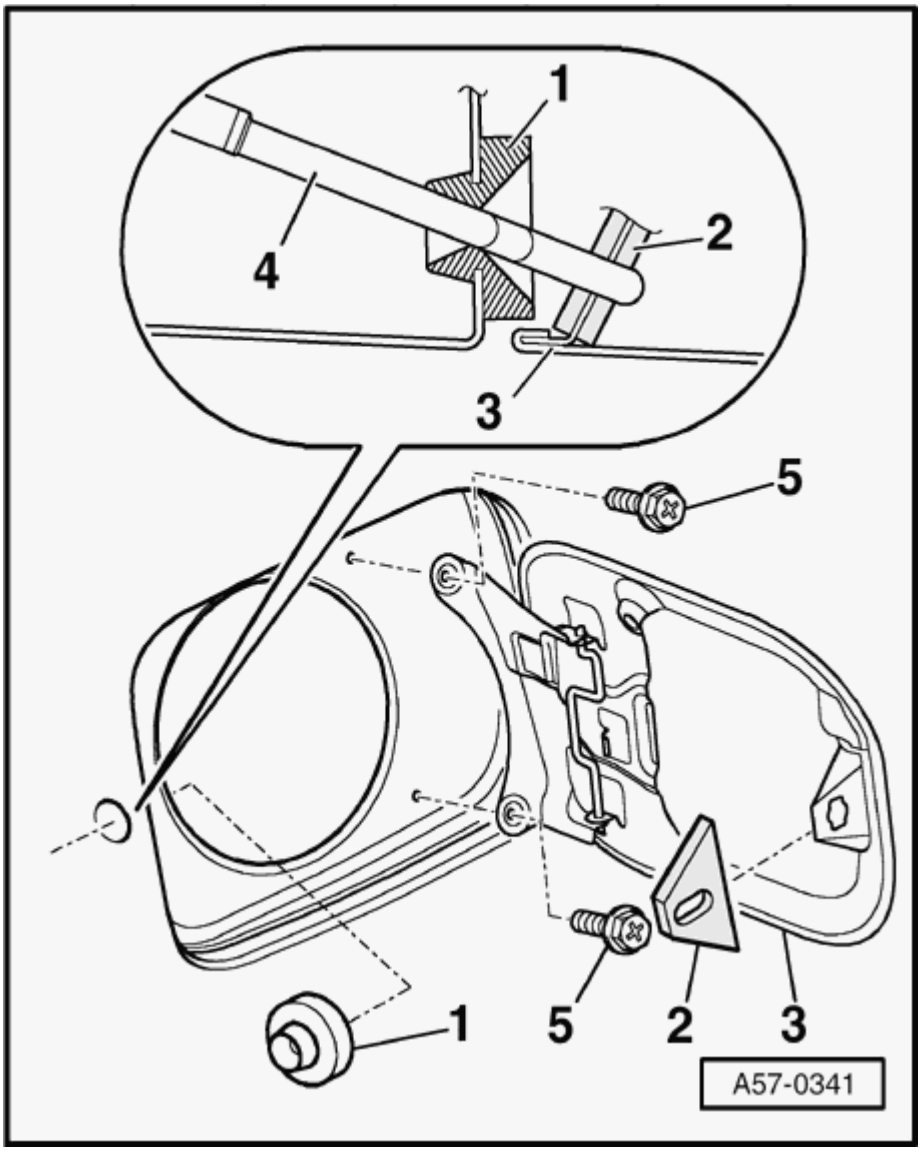


Fig. 114: Fuel Filler Flap Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Installing

- Before installing actuator, emergency release - **2** - must be slid over the locking pin.
- Locking pin of actuator must move cleanly into closed fuel filler flap - **2** -.
- Clip in grommets - **1** -.

NOTE:

- **To remove fuel filler flap, remove bolts - 5 -.**
- **Panel gap dimensions Panel gap dimensions.**

Tightening torques --> **Component locations**.

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57 FRONT DOORS/DOOR COMPONENTS/CENTRAL LOCKING SYSTEM

FRONT DOOR

Window frame and window regulator, removing and installing

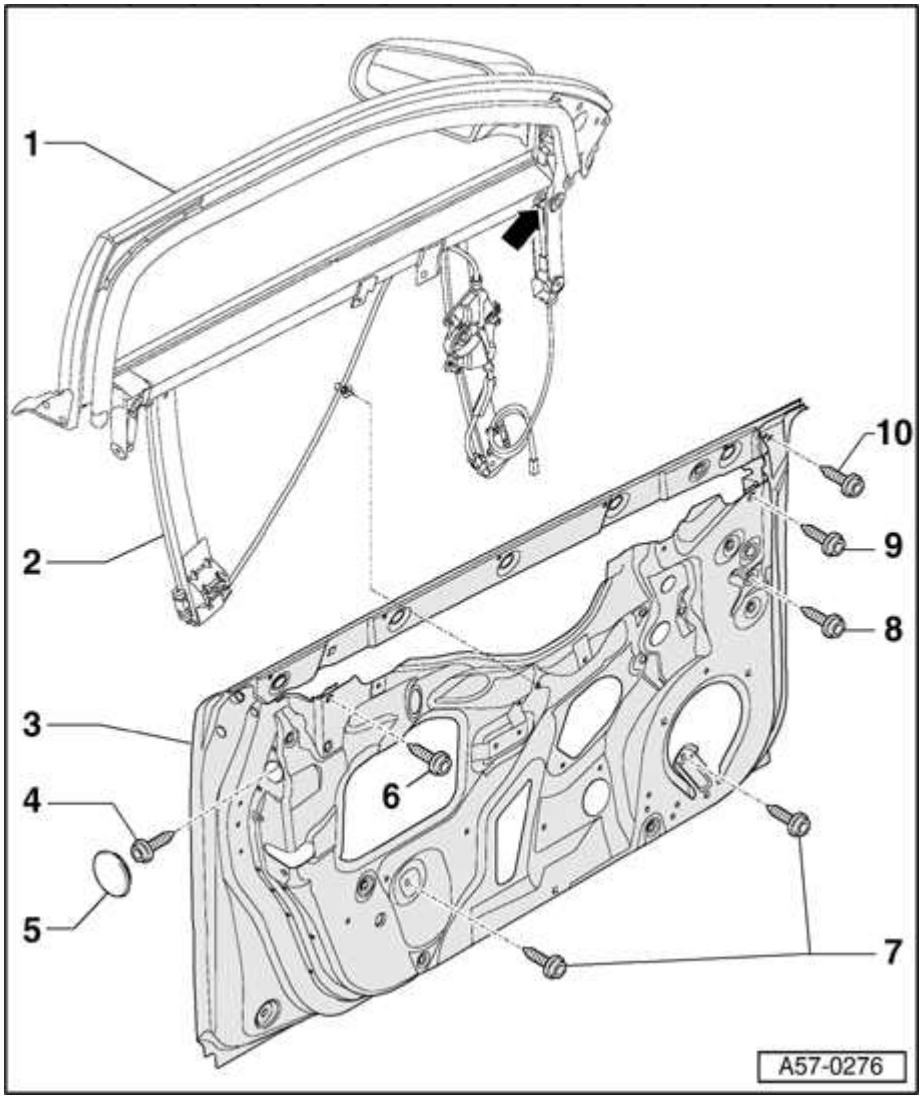


Fig. 72: Window Frame And Window Regulator Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Window frame

- **Removing:**
- Remove door trim. Refer to
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

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; front door trim

- Disconnect electrical harness connectors.
- Remove window regulator motor **Window regulator motor, removing and installing**.

- Remove bolts - **7** -.
- Remove bolts - **4** - , - **8** - and - **10** -.
- Remove bolts - **6** - and - **9** - and lift window frame with window regulator upward and out of door.
- Installation:

- Drive window into window frame half way before installing.
- Insert window frame and window regulator into door from above.
- Knock in the upper profile halves of door-side gasket into window frame at top.
- Loosely screw in mounting bolts in the sequence - **6** - ; - **9** - ; - **3** - ; - **8** - and - **10** -.

- Tighten collared shoulder bolts - **6** - and - **9** - hand tight.
- Lightly press window frame - **1** - inward at top.
- Tighten bolts - **4** - and - **8** - to 32 Nm.
- Tighten collared shoulder bolts - **6** - and - **9** - to 32 Nm.

- Tighten bolt - **10** - to 10 Nm.
- Tighten locating bolt - **arrows** - in window frame to 32 Nm.

2 - Window regulator

- Bolted to window frame for installing in door.

3 - Front door

4 - Torx screw

- 32Nm

5 - Concealment cap

6 - Collared shoulder bolt

- 32Nm

7 - Collar bolt

- 6Nm

8 - Torx screw

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- 10Nm

9 - Collared shoulder bolt

- 32Nm

Window regulator motor, removing and installing

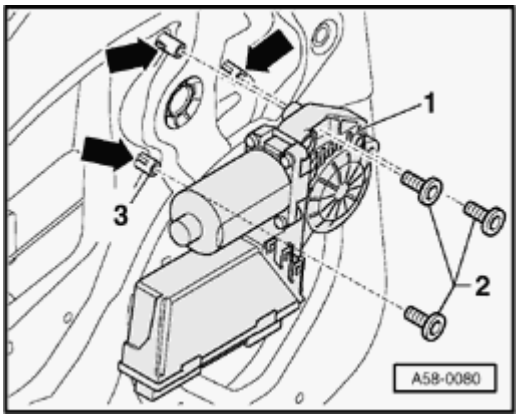


Fig. 73: Window Regulator Motor Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- To remove, unscrew bolts - **2** - and remove window regulator motor.
- Install window regulator motor --> **Motor for window regulator, removing and installing**.

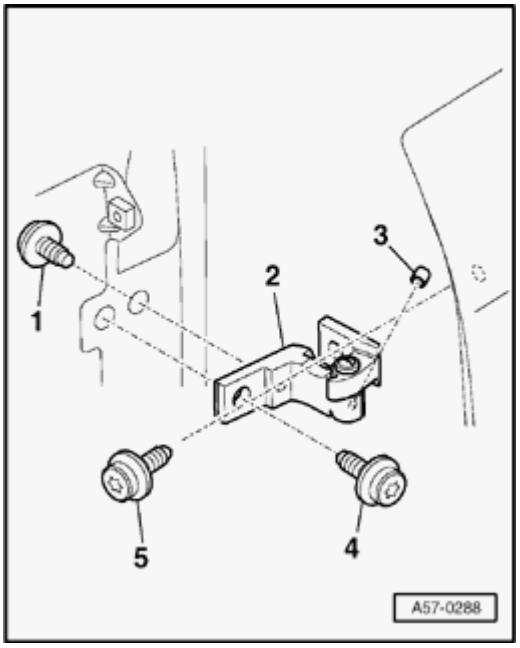


Fig. 74: Upper door hinge Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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Upper door hinge

- Torx bolt T45 - **1** - (installed from inside of vehicle) 32 Nm.
- Top door hinge - **2** -.
- Cover cap - **3** -.
- Torx bolt T45 - **4** - 32 Nm.
- Install bolt - **5** - T45 32 Nm.

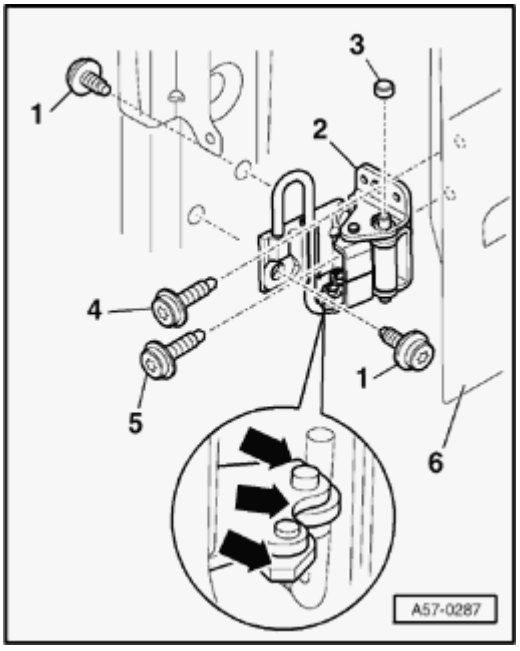


Fig. 75: Lower Door Hinge Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Lower door hinge

- Torx bolt T45 - **1** - 32Nm bolted to B-pillar from interior of vehicle.
- Lower door hinge - **2** -.
- Cover cap - **3** -.
- Torx bolt T45 - **4** - 32Nm.
- Collared shoulder bolt T45 - **5** - 32Nm.
- Re-grease lubrication points - **arrows** - in service interval.
- Front door - **6** -.

Door window, removing from window regulator

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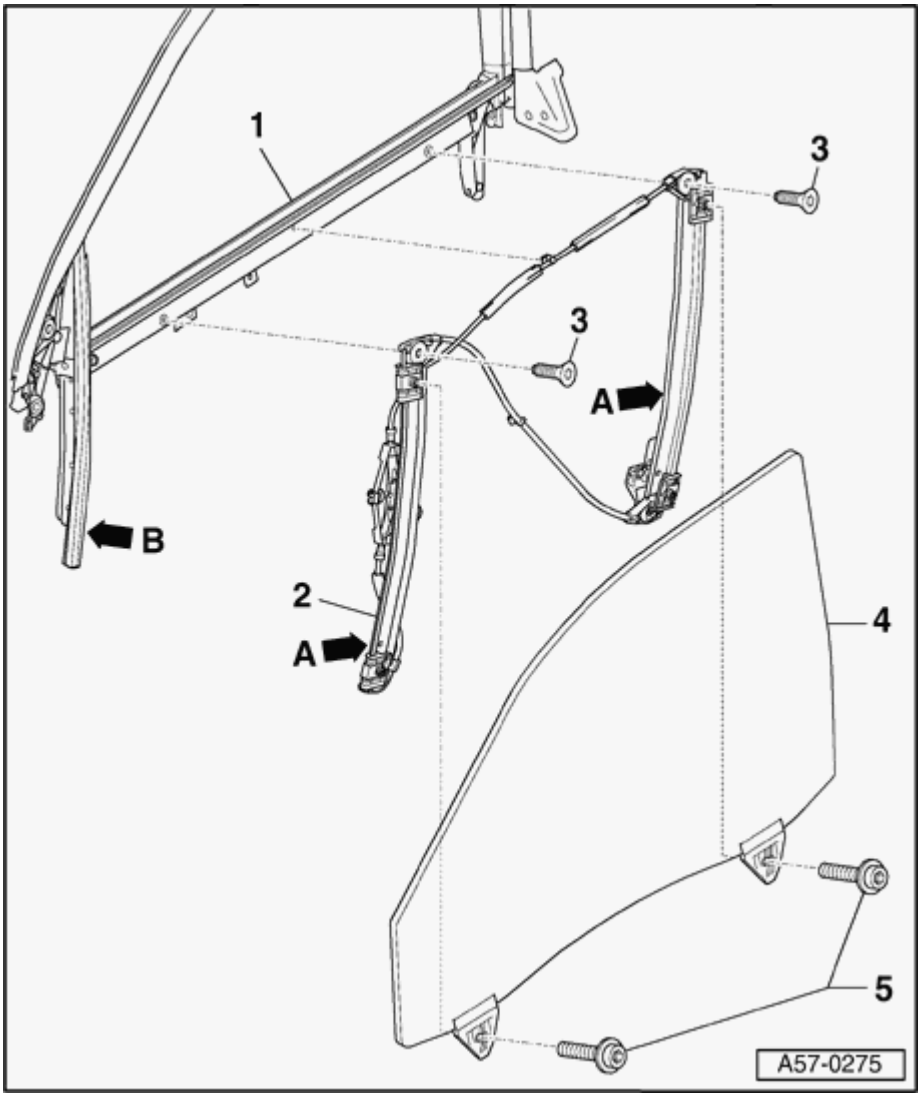


Fig. 76: Door Window, Removing From Window Regulator
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Window frame

- **Removing:**
- Remove door trim.
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  ; front door trim
- Window frame with window regulator removed from front door --> **Window frame and window regulator, removing and installing**.
- Door window - **4** - removed

- To remove, unscrew countersunk screws - **3** - and remove window regulator from window frame.

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- Installation:
- When installing, make sure that both guide rails, - **arrows A** - , run parallel to guide - **arrow B** -.
- Tighten bolts - **3** - to 6 Nm.

2 - Window regulator

- Window frame with window regulator removed from front door --> **Window frame and window regulator, removing and installing**.
- Door window removed.
- To remove, unscrew countersunk screws - **3** - and remove window regulator from window frame.

3 - Countersunk screw

- 6Nm

4 - Window

- **Removing:**
- Drive down door window fully.
- Unscrew bolts - **5** - and remove door windows from window regulator.
- **Installing:**

- Insert window into window regulator.
- Screw bolts - **5** - into window regulator, but do not tighten yet.
- Drive door window upward into window frame.
- Pull door window toward rear into window guide on window frame at B-pillar and tighten bolts - **5** - to 4Nm.

5 - Socket head bolt

- 4 Nm

Motor for window regulator, removing and installing

Removing

- Door trim removed. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

NOTE:

- **Motor for window regulator can be removed or installed in every position of motor or side window.**
- **Before removing motor, disconnect electrical harness connectors.**

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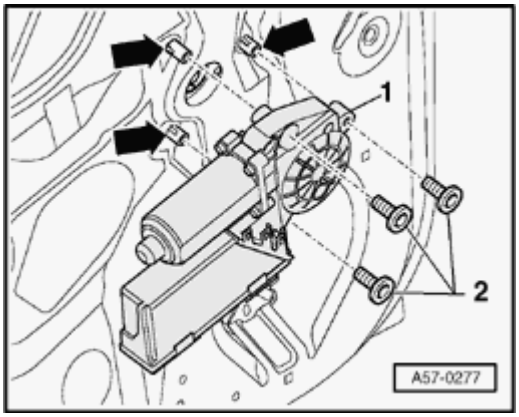


Fig. 77: Removing Torx Bolts T30 And Motor
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove Torx bolts - **2** - T30 and remove motor.

Installing

- When installing, make sure that threaded pins - **arrows** - are engaged in inner door plate.
- Slide on window regulator motor -1- and secure with bolts - **2** -.
- Tightening torque 3.5 Nm

NOTE:

- **Only switch ignition on and off after installing motor and connected wires.**
- **Then move door window upward to stop and keep pressing switch for window regulator for approx. 2 seconds longer.**
- **This position is the base position and the high- and low-running function is activated.**

Front door, adjusting

Special tools and equipment

Special tools, testers and auxiliary items required

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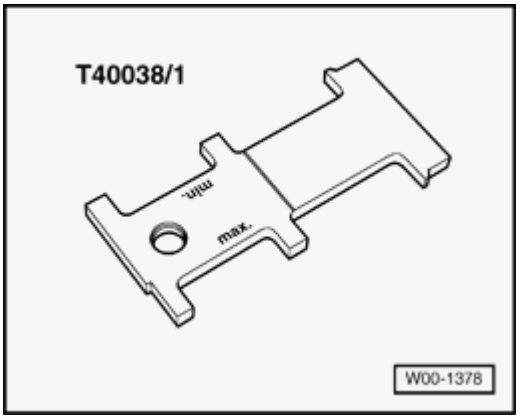


Fig. 78: T40038/01
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- T40038/01

NOTE:

- **To adjust door exactly in relation to height, inclination and door recess, use the special tool T40 038/1 as described on --> Adjusting using door adjustment template T40038/1.**

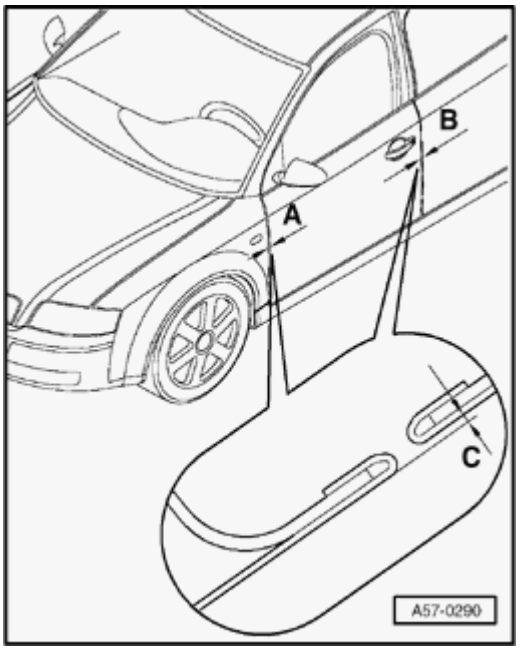


Fig. 79: Panel Gap Dimensions
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Panel gap dimensions

NOTE:

- **Rear door must be adjusted.**
- **Panel gap dimensions can be checked using 3371 adjustment gauge.**

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- Dimension - **A** - = 3.5 mm ± * .5mm .
- Dimension - **B** - = 4.5 mm ± * .5mm .
- Flush dimension - **C** - =approx.* mm+1mm in parallel position to chassis.

Adjustment in longitudinal direction

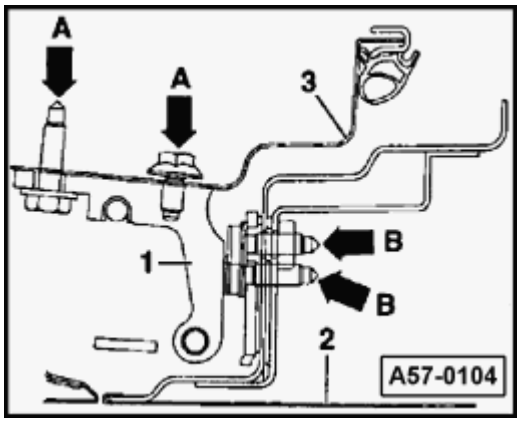


Fig. 80: Adjustment In Longitudinal Direction
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Adjustment in longitudinal direction is performed by loosening hinge bolts - **arrow A** - of A-pillar at top of door hinge or/and bottom and sliding doors - **2** - (over-sized holes in hinge or in A-pillar)
- Tightening torque 32 Nm
- Door hinge - **1** -.
- - **A** - pillar - **3** -
- Door - **2** -

NOTE:

- **Illustration shows lower door hinge.**

Adjustment to center of vehicle

NOTE:

- **A collared shoulder bolt is installed at each upper and lower door hinge (door side).**
- **When repairing, an adjustment is therefore not necessary under normal circumstances.**
- **If an adjustment should become necessary anyway, bolts can be replaced with bolts of the same size, length and toughness .**

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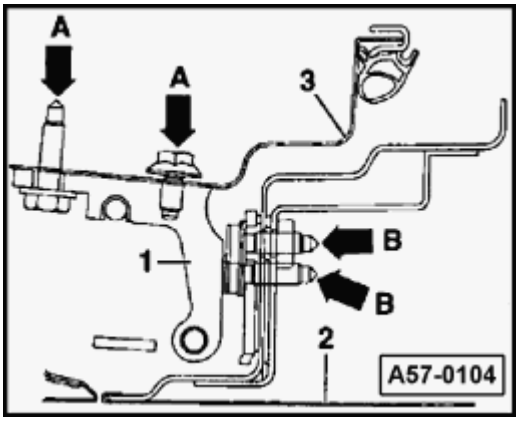


Fig. 81: Adjustment In Longitudinal Direction
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- The adjustment to vehicle center occurs by loosening hinge bolts - **arrow B** - at top and/or at bottom of door and shifting the doors (elongated holes in hinge).
- Tightening torque 32 Nm

NOTE:

- **In rear portion of door, adjust door depth (relative to vehicle center) via striker.**

Adjusting via striker

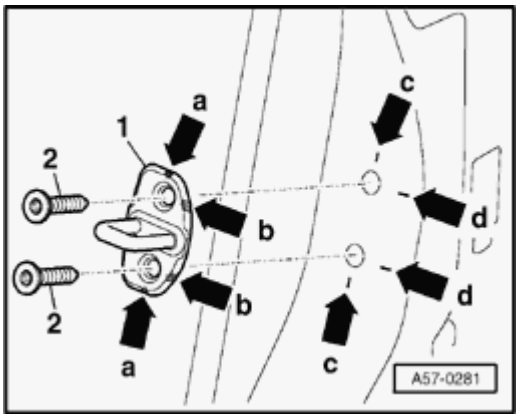


Fig. 82: Adjusting Via Striker
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Loosen bolts - **2** -.
- Use the markings (- **arrows a** - and - **arrows c** -) for side adjustment.
- Slide striker - **1** - until the door is flush with the contour of the chassis.

NOTE:

- **Door may only be adjusted for depth (towards car interior) and not for height.**

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- Use the markings (- **arrows b** - and - **arrows d** -) for height adjustment.
- Striker must align in door lock center for correct adjustment.
- Tighten bolts to 25 Nm.

Adjusting using door adjustment template T40038/1

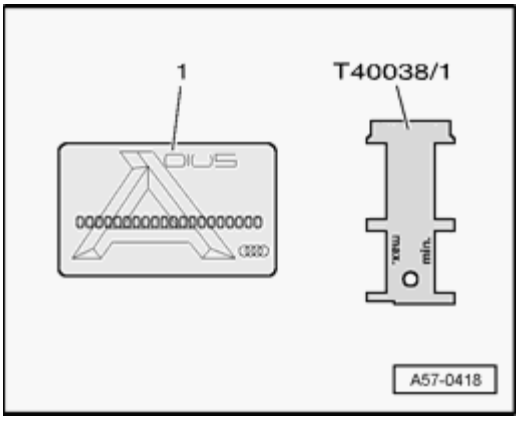


Fig. 83: Door Adjustment Template T40038/1
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Use the door adjustment template T40 038/1 as described in the following for testing (e.g. for wind noises) and for adjusting door.
- For testing contact pressure of sealing lips on roof trim molding, use a standard bank card - **1** - or similar means.

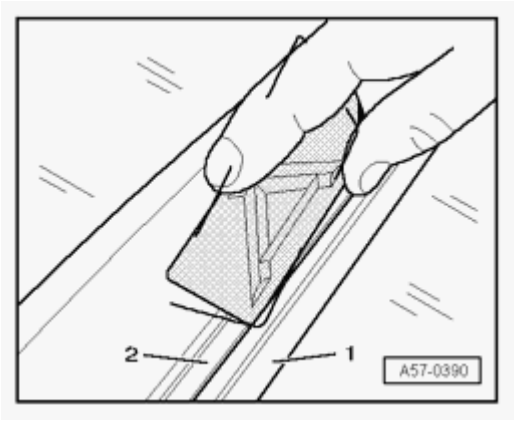


Fig. 84: Using Standard Bank Card To Drive Off Contact Area Of Sealing Lip To Roof Trim Molding With Light Pressure
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Testing sealing lip/roof trim molding contact

- Using a standard bank card, drive off contact area of sealing lip to roof trim molding with light pressure.
- When doing this, card must not sink in between sealing lip - **1** - and roof trim molding - **2** -.

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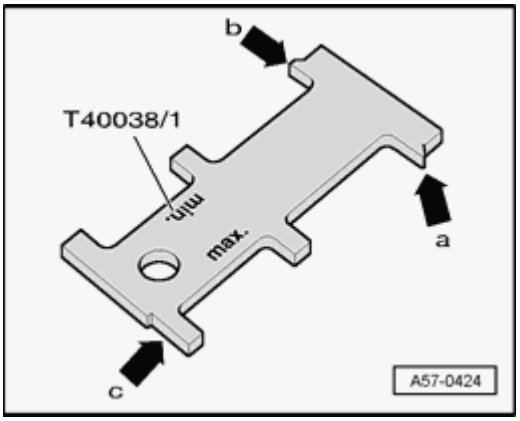


Fig. 85: Identifying Template Has Points Of Different Lengths At So That Side Adjustment Of Door Can Be Tested
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Template has points of different lengths at - **arrows a** - and - **arrows b** - so that side adjustment of door can be tested.
- The upper point - **arrow a** - on the side with the cut-out - **arrow c** - at bottom is the longer side (max. marking).
- This side is used to check whether the window frame is located too far outward in relation to the chassis.

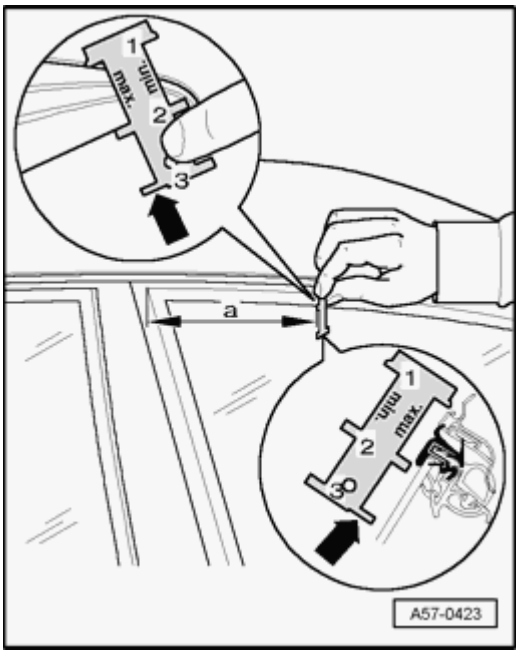


Fig. 86: Positioning Template With Cut-Out Facing Door Window
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Position template at dimension - **a** - = 200mm and with cut-out - **arrow** - facing door window
- Make sure that points - **1** - and - **3** - make contact.
- At point - **2** - of template, there must be a gap.

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- In this position (max), doors are adjusted to farthest outward point within tolerance range.
- If there is no gap at point - **2** - , or there is a gap at point - **1** - , the window frame is set too far outward and must be adjusted --> **Window frame, adjusting**.

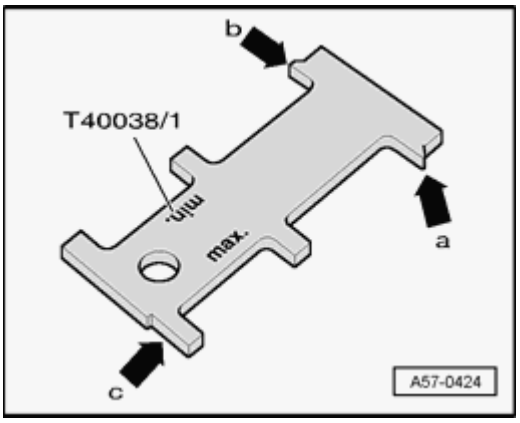


Fig. 87: Identifying Template Has Points Of Different Lengths At So That Side Adjustment Of Door Can Be Tested
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- The upper point - **arrow b** - opposite the side with cut-out - **arrow c** - at bottom is the shorter side (min. marking).
- This side is used to check whether the window frame is located too far inward in relation to the chassis.
- Position template at dimension - **a** - = 200mm and with cut-out - **arrow** - turned away from door window as depicted in magnified areas of illustration.

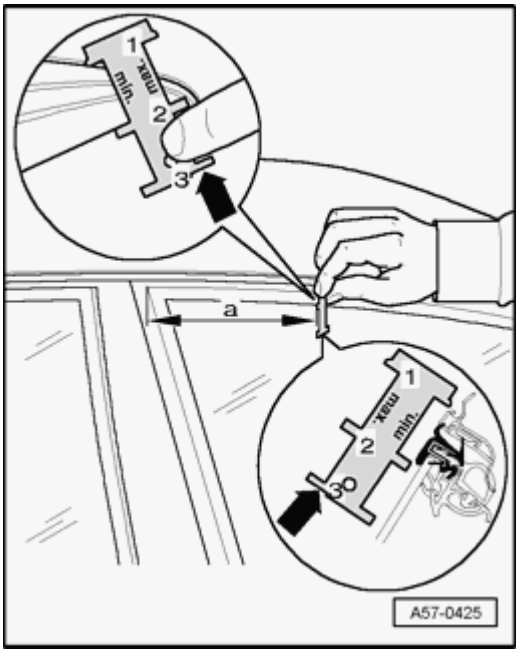


Fig. 88: Making Sure Points Make Contact On Door Window

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Make sure that points - **2** - and - **3** - make contact on door window.
- At point - **1** - of template, there must be a gap.
- In this position (min), doors are adjusted to farthest inward point within tolerance range.
- If point - **1** - has no gap, or if template cannot be brought into contact at point - **2** - , window frame is set too far inward and must be adjusted.

Panel gap dimensions

Special tools, testers and auxiliary items required

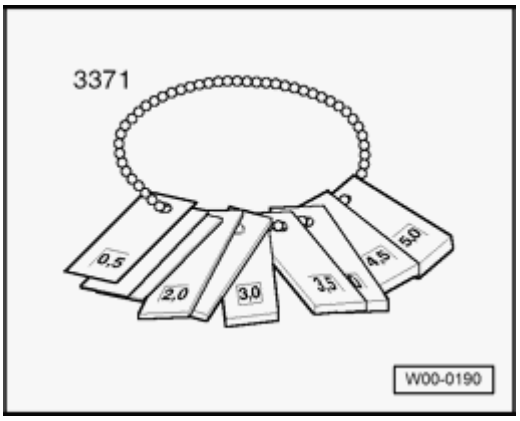


Fig. 89: Identifying Adjustment Gauge 3371
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Adjusting gauge 3371

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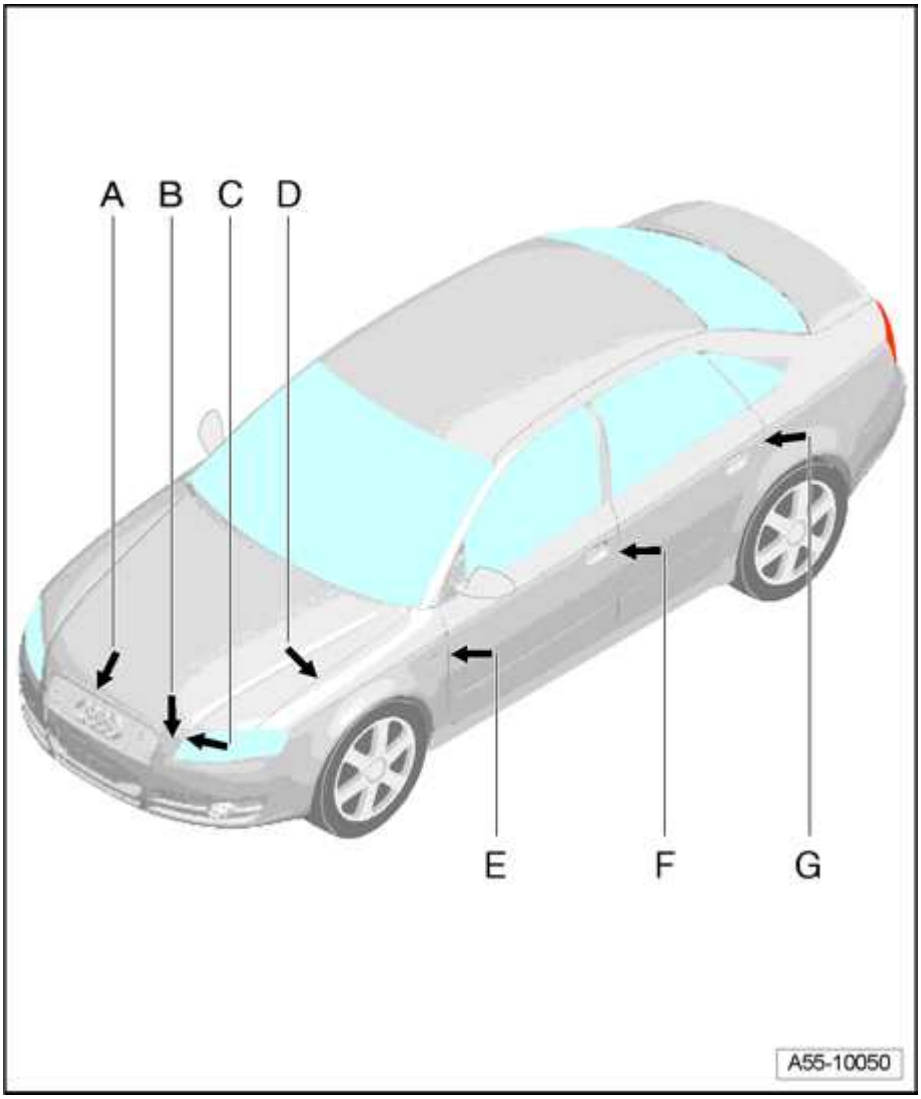


Fig. 90: Panel Gap Dimensions
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Dimension - **E** - = 3.5 mm ± 0.5 mm
- Dimension - **F** - = 4.5 mm ± 0.5 mm
- Flush adjustment of front door to fender must be in the range of 0 mm to 1 mm recess.
- Flush adjustment of front door to rear door must be in the range of 0 mm to 1 mm projection.

Window frame, adjusting

Adjustment for A-pillar region

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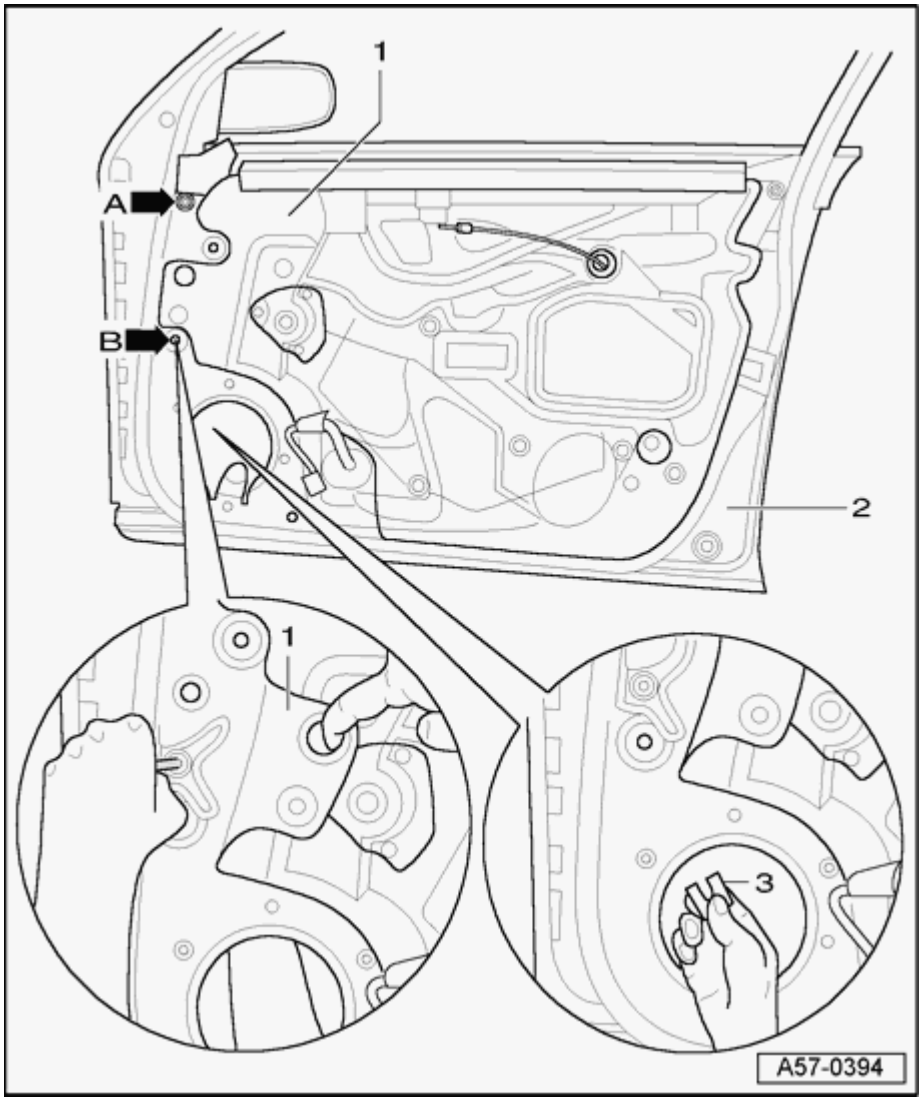


Fig. 91: Loosening Mounting Bolts And Removing Or Adding Spacers At Bolt Point
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Insulation for door trim

- Must not be removed for the adjustment.

2 - Front door

- For correct adjustment of window frame, door trim and loudspeaker must be removed.

3 - Spacer

- Place underneath at bolt point - **B** - if necessary.
- By loosening mounting bolts - **arrow A** - and removing or adding spacers at bolt point - **B** - , --> **Inclination adjustment at A-pillar**, the position (inclination) of window frame in A-pillar region can be

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adapted to roof molding.

- Different sizes (0.5 mm and 1 mm thick) are available.

Inclination adjustment at A-pillar

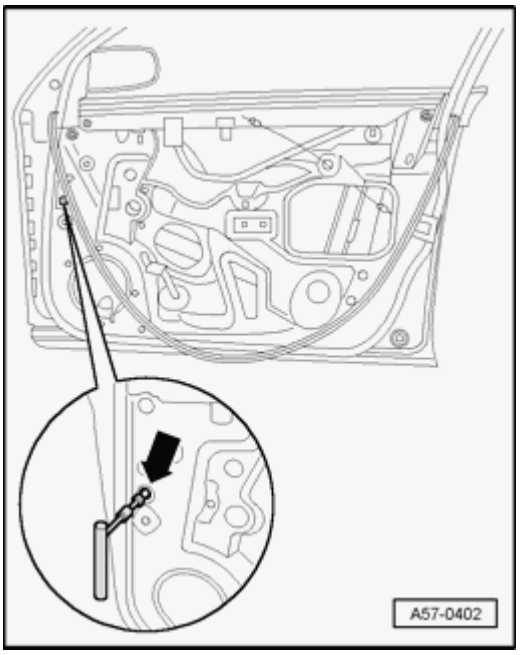


Fig. 92: Removing/Installing Bolt
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- By loosening bolt - **arrow** - and placing underneath or removing spacers, the contact pressure of seal in A-pillar region can be adjusted.
- Spacers up to a maximum of 3 mm can be inserted underneath, depending on technical assessment.
- Spacers in sizes of 0.5 mm and 1 mm are available.

Adjustment for B-pillar region

NOTE:

- **If height adjustment dimensions are not within tolerance range of the adjusting template, collared shoulder bolts must be replaced by two standard-type bolts.**
- **After that, the window frame height can be adjusted.**

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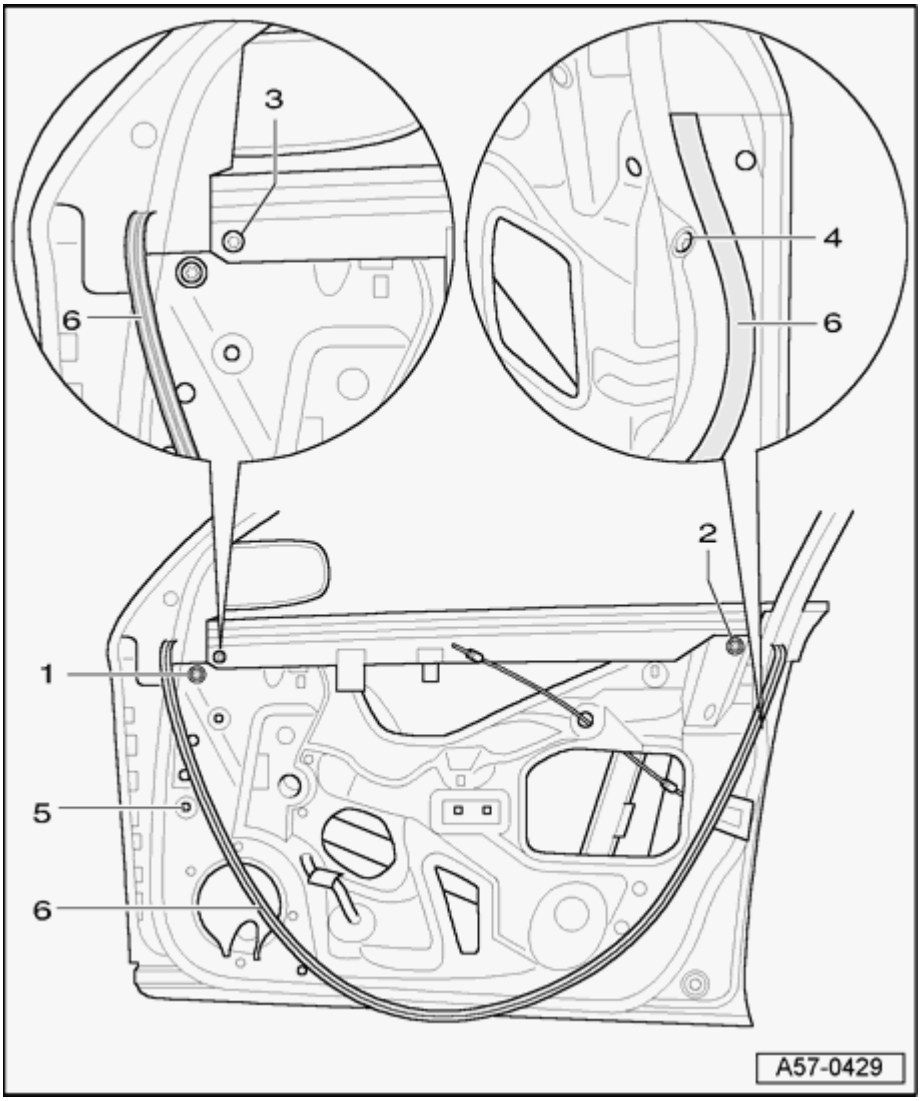


Fig. 93: Adjustment For B-Pillar Region
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Front collared shoulder bolt

- Replace with standard-type bolt for height adjustment if necessary.
- 32 Nm.

2 - Rear collared shoulder bolt

- Replace with standard-type bolt for height adjustment if necessary.
- 32 Nm.

3 - Bolt for longitudinal compensation (X compensation)

- 32 Nm.

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4 - Rear mounting bolt

- 32 Nm.

5 - Front mounting bolt

- 32 Nm.

6 - Door seal

NOTE:

- **After installing or adjusting window frame, mounting bolts must be screwed in and tightened in the sequence described in the following.**
- **Door window must be lowered to half-way before installing window frame.**
- **Insert door frame into door base carrier.**
- **Screw in bolts - 1 - and - 2 - "hand tight".**
- **Loosen bolt - 3 -.**
- **Install door seal - 6 - in window frame.**
- **Screw in bolt - 4 - and tighten it to 32 Nm.**
- **Close door and check inclination of window frame using adjusting template --> Adjusting using door adjustment template T40038/1.**
- **If necessary, the inclination can be adjusted further by loosening bolt - 4 -.**
- **Check contact area of seal in A-pillar region Inclination adjustment at A-pillar**
- **Tighten bolt - 5 - to 32 Nm.**

Height adjustment at window frame

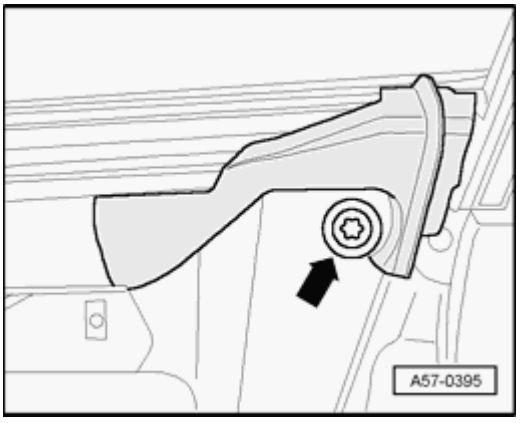


Fig. 94: Replacing Collared Shoulder Bolt
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- If height of window frame must be adjusted, then the corresponding collared shoulder bolt -arrow- must be replaced with a standard bolt.

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- Now, the window frame height can be adjusted.
- Position adjusting template as shown on roof, or on upper edge of rain channel.

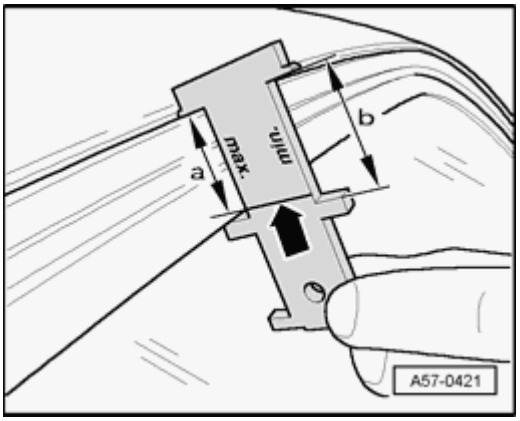


Fig. 95: Height Adjustment At Window Frame
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- For a correct adjustment, lower edge of window frame must be located between markings - **a** - , (line on template - **arrow** -) or - **b** -.
- Check/adjust inclination of window frame --> **Adjusting using door adjustment template T40038/1**.

Front door adjustment

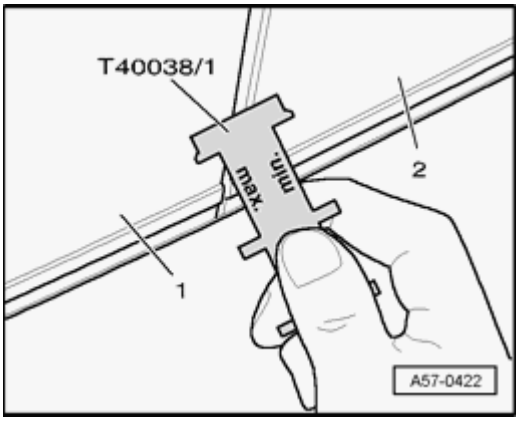


Fig. 96: Front Door Adjustment
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Door position can be assessed using lower side of template T40038.
- No recess of front door - **1** - at rear door - **2** - is permitted.
- Recess of front door - **1** - at rear door - **2** - is not permitted (wind noise).

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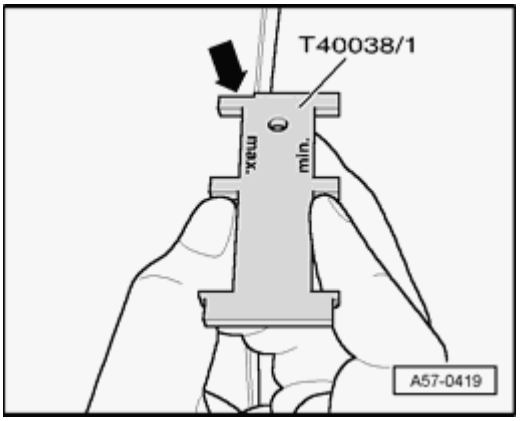


Fig. 97: Projection Of Front Door At Rear Door Must Be In Range Of Template Cut-Out
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Projection (maximum 0.8 mm) of front door at rear door must be in range of template cut-out - **arrow** -.

Window frame installation

NOTE:

- **If window frame must be removed or installed for a repair, observe the following points and the bolting sequence described afterward.**
- **The adjusting element is self-adjusting, meaning it can compensate bearing tolerances.**

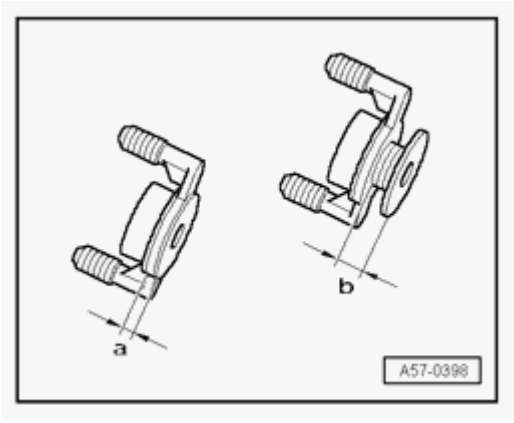


Fig. 98: Identifying Adjusting Element Is In Basic & End Position
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- First check basic setting of adjusting element.
- Before installing window frame, adjusting element must always be in the basic position.
- Adjusting element is in basic position in position - **a** -.
- Adjusting element is in end position in position - **b** -.

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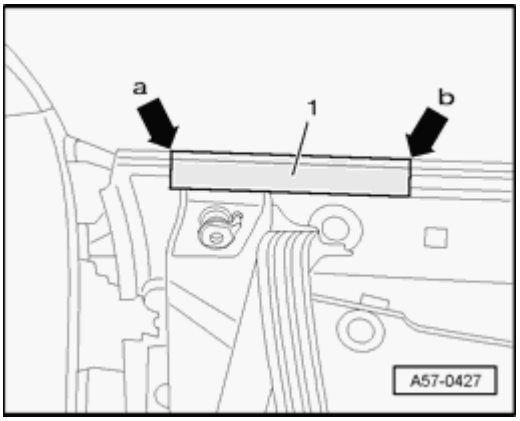


Fig. 99: Applying Sealing Strip Along Window Shaft Strip Under
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- In area of mirror base on A-pillar, a sealing strip is applied flush along window shaft strip under trim as shown.
- When removing mirror base, sealing strip must always be replaced.
- Pull off protective foil from sealing strip.
- Affix sealing strip starting from - **arrow b** - up to cut at front and shorten strip using scissors - **arrow a** -.
- Insert window frame with door window lowered to half-way into door shell.

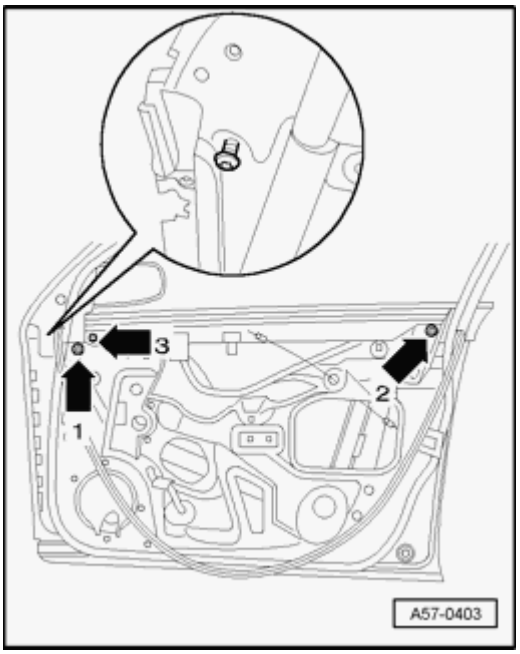


Fig. 100: Removing/Installing Door Seal Bolts
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Screw in bolts - **arrow 1** - and - **arrow 2** - by hand.
- Loosen bolt - **arrow 3** -.

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- Install door seal into window frame.
- Screw in rear bolt through door shell and secure window frame.

- Tighten bolt to 32 Nm.
- Close door and check inclination of window frame using adjusting template in B- pillar region and adjust if necessary.

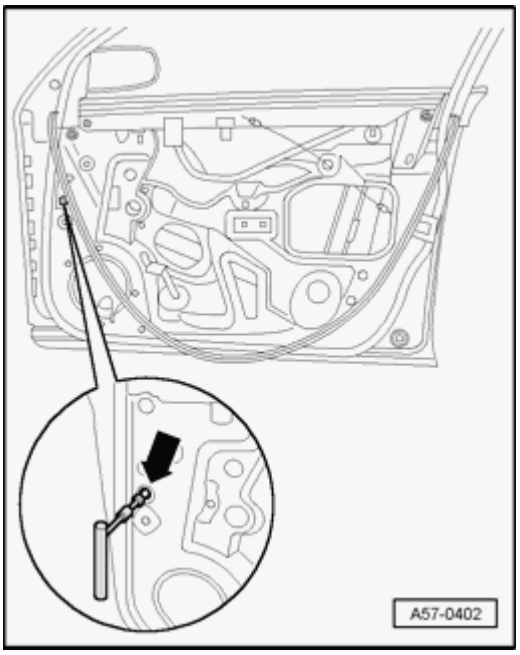


Fig. 101: Removing/Installing Bolt
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Screw in bolt - **arrow** - and check adjustment in A-pillar region.
- If necessary, adjust window frame at A-pillar **Inclination adjustment at A-pillar**
- Spacers can be slid in between window frame and door shell up to a maximum of 3mm, depending on technical assessment.
- Tighten bolt - **arrow** - to 32 Nm.

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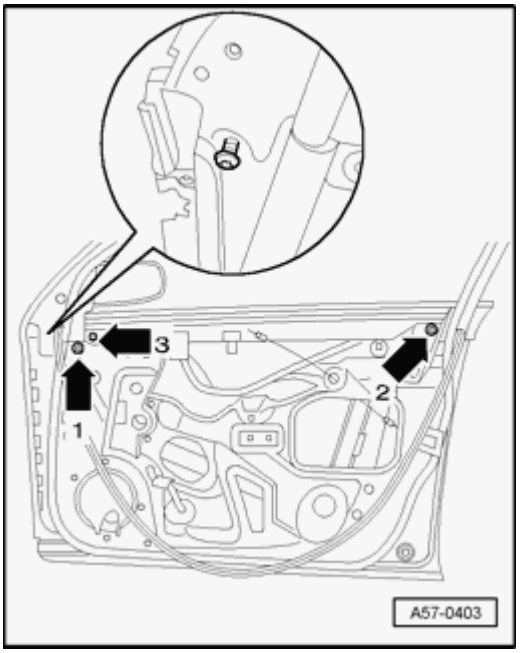


Fig. 102: Removing/Installing Door Seal Bolts
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Tighten collared shoulder bolts - **arrow 2** - and - **arrow 3** - to 32Nm.
- Also tighten bolt - **arrow 3** - to 32 Nm.
- Insert bolt into adjusting element as shown in magnified area of illustration.
- Slowly screw bolt into adjusting element.

- While doing this, upper part of adjusting element unscrews and fits automatically

NOTE:

- **If upper part of adjusting element does not unscrew on its own, adjusting element must be replaced.**

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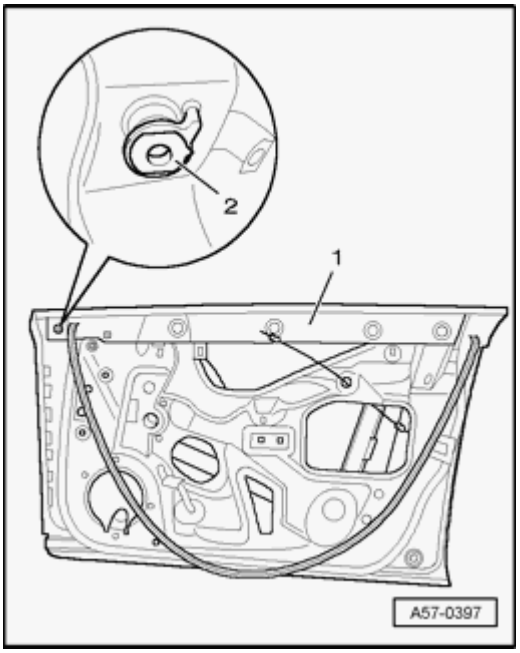


Fig. 103: Removing/Installing Adjusting Element Out/In Of Door Shell
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Replacing adjusting element

- To remove, pull adjusting element - **2** - out of door shell - **1** -.
- To install, press adjusting element in basic position with retaining pins completely into door shell at top.

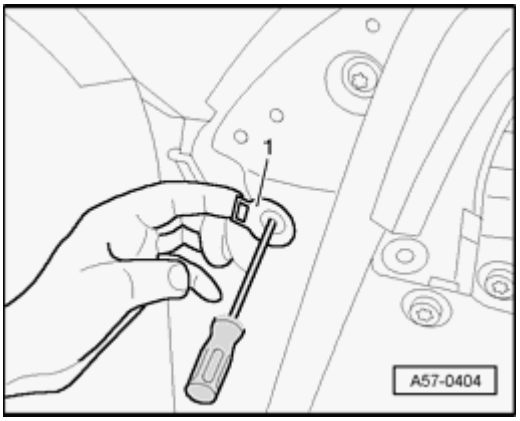


Fig. 104: Placing Finger On Window Frame And Door Plate As A Check
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- While screwing the adjusting element, place a finger on window frame and door plate as a check.
- The reason for this is the distance must not change while screwing the adjusting element.

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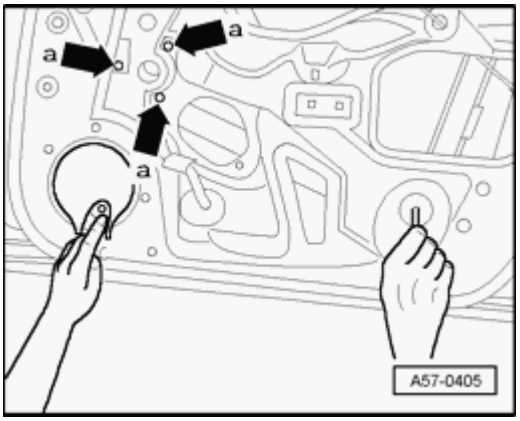


Fig. 105: Tightening Bolts Of Window Regulator Rails At Bottom
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Tighten bolts of window regulator rails at bottom to 6Nm.

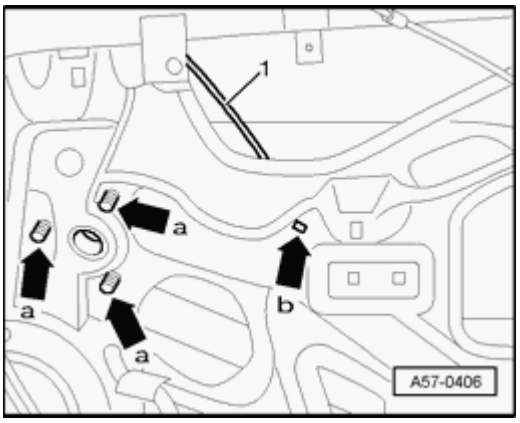


Fig. 106: Identifying Pins, Cable & Door Shell
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Clip pins - **arrows a** - for window regulator cable reel completely into door shell.
- Clip cable - **1** - into door shell - **arrow b** - , otherwise rattling noises will result.

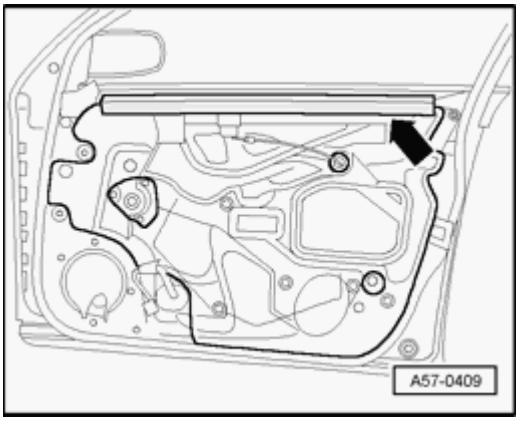


Fig. 107: Securing Door Insulation Mat Using Water Resistant Webbed Band On Upper Side

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Also secure door insulation mat using water resistant webbed band (e.g. D 004 350 A2) - **arrow** - on upper side as shown.
- This measure can prevent insulation mat from loosening from door during periods of operation and thus preventing drafts.

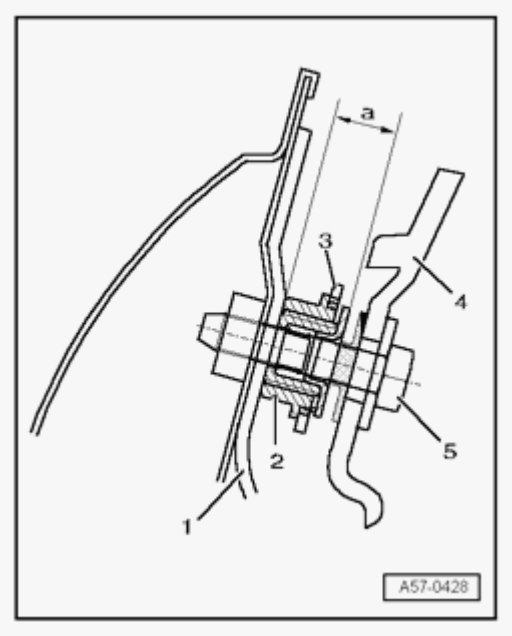


Fig. 108: Function Of Adjusting Element
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Function of adjusting element

- While screwing in bolt - **5** - , the upper part - **3** - of adjusting element screws itself out of the lower part - **2** - and compensates a gap between window frame - **4** - and door shell - **1** -.

Adjustment dimensions for front door window frame

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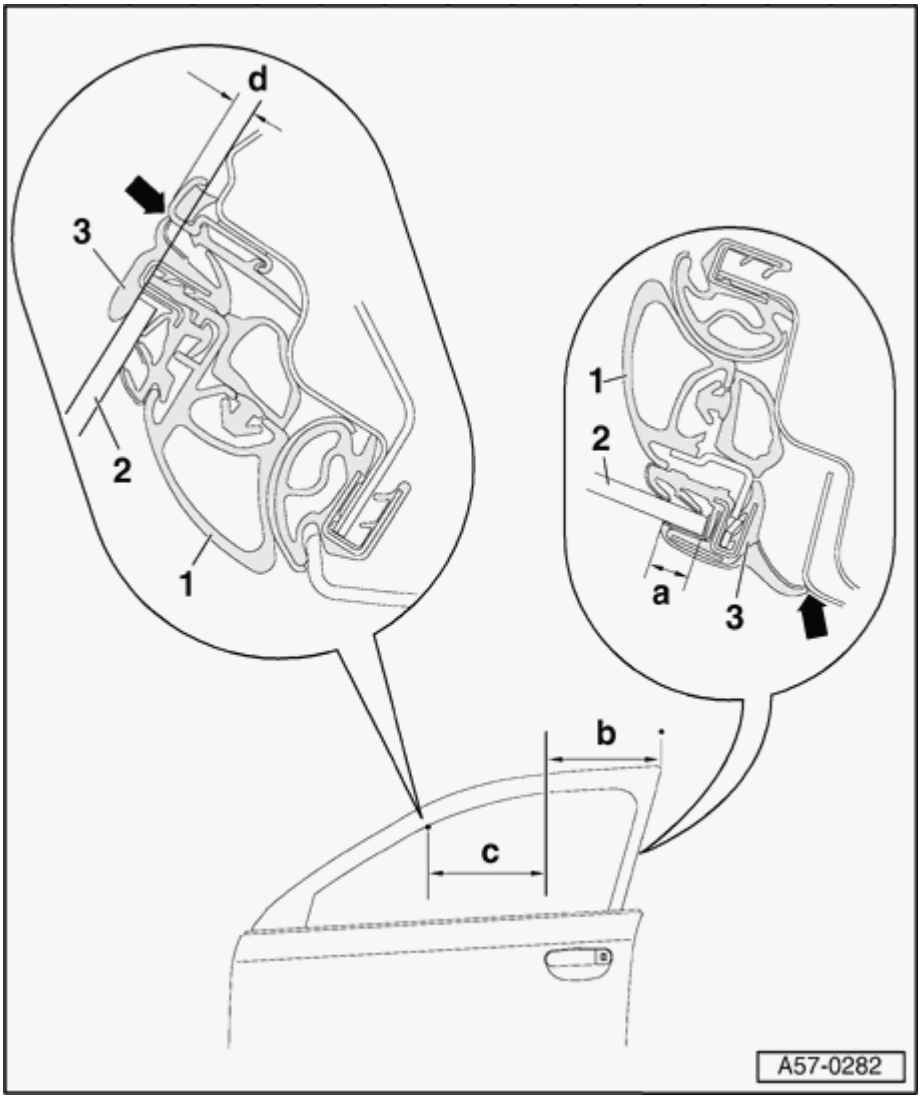


Fig. 109: Adjustment Dimensions For Front Door Window Frame
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Window frame

- For correct door adjustment, sealing lip must make clean contact to contours at roof frame and at B-pillar, see - **arrows** -.

2 - Window

- Adjust door until the result is dimension - **d** - = 4 mm in area - **c** - = 365 mm.
- Dimension - **d** - can be checked further using door adjusting template T40038.
- Dimension - **b** - of rear door edge starting at B- pillar = 200 mm.

3 - Window frame

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- Door window - **2** - must drive as far as dimension - **a** - = 7.5 mm^{-1mm} into window frame at B- pillar.

Door handle and door lock - front, assembly overview

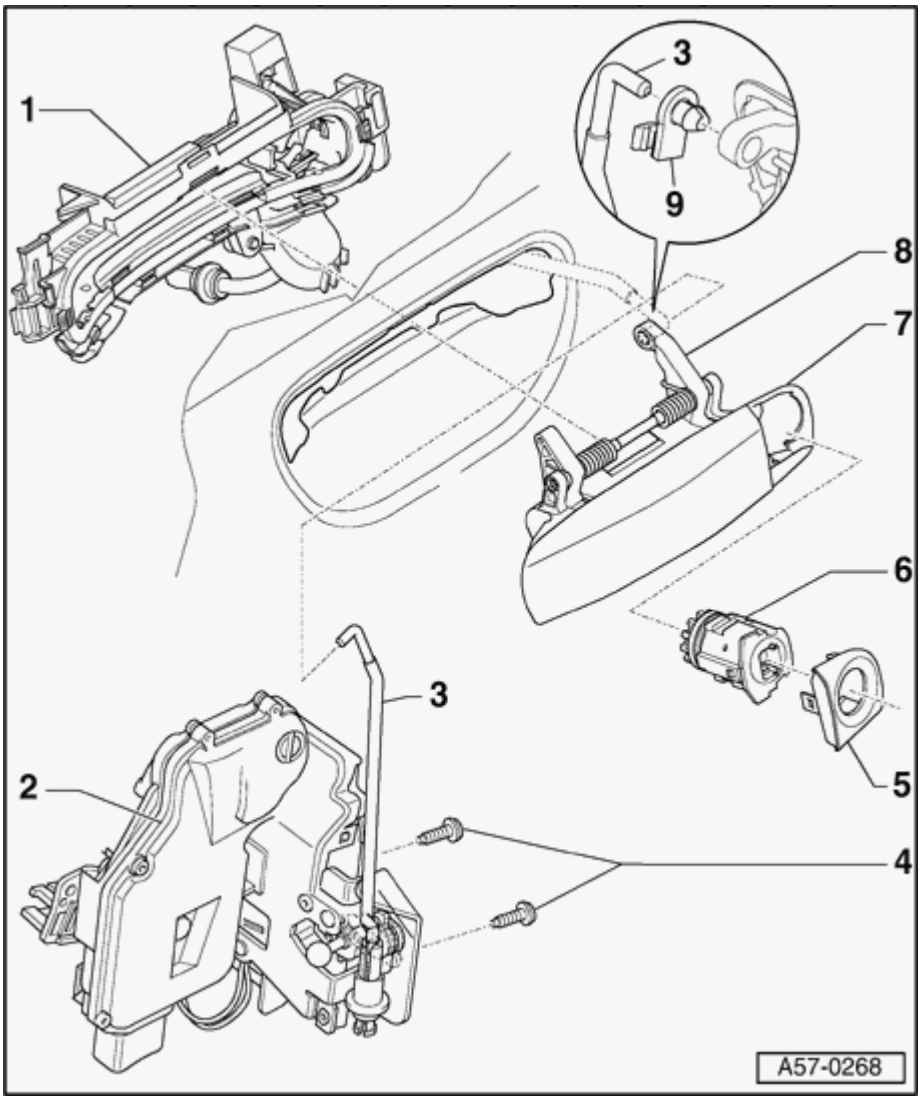


Fig. 110: Door Handle And Door Lock - Front, Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Mount for door handle.

- Releasing **Disengage mount for door handle**.

2 - Door lock

- **Removing:**
- Door trim removed.

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- Window frame and window regulator removed --> **Window frame and window regulator, removing and installing**.
- To remove, unscrew multi-point bolts - **4** - and remove door lock downward.

3 - Operating rod

- Clip into door lock **Engaging operating rod in door lock**

4 - Socket-head bolt

- 20 Nm

5 - Lock cylinder cover

- Lock cylinder removed and cover unclipped

6 - Lock cylinder

- Removal **Locking cylinder, removing**

7 - Door handle

- Before disassembling, remove window frame and window regulator.
- Removal --> **Door handle, removing**.

8 - Actuating lever

9 - Clip

- Engage operating rod in clip, swivel clip 90° and engage at operating rod.

Locking cylinder, removing

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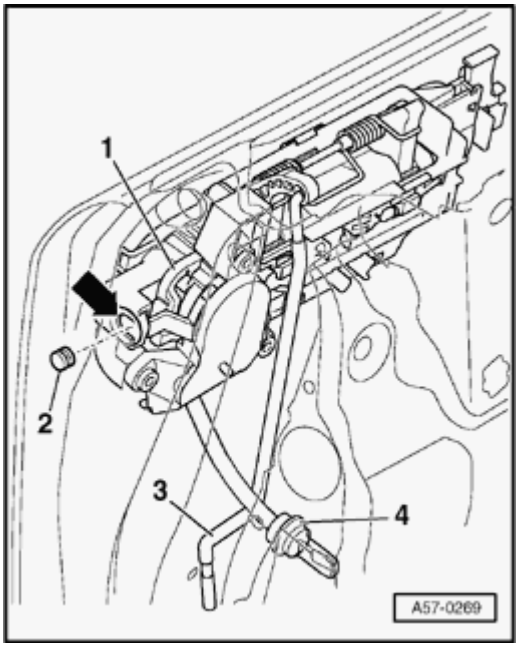


Fig. 111: Locking Cylinder, Removing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Open driver-side door.
- Remove cover cap - **2** -.
- Turn Torx bolt arrow counter-clockwise until it stops.
- This moves the arm - **1** - toward rear and releases lock cylinder.

- Remove lock cylinder from door handle.

Door handle, removing

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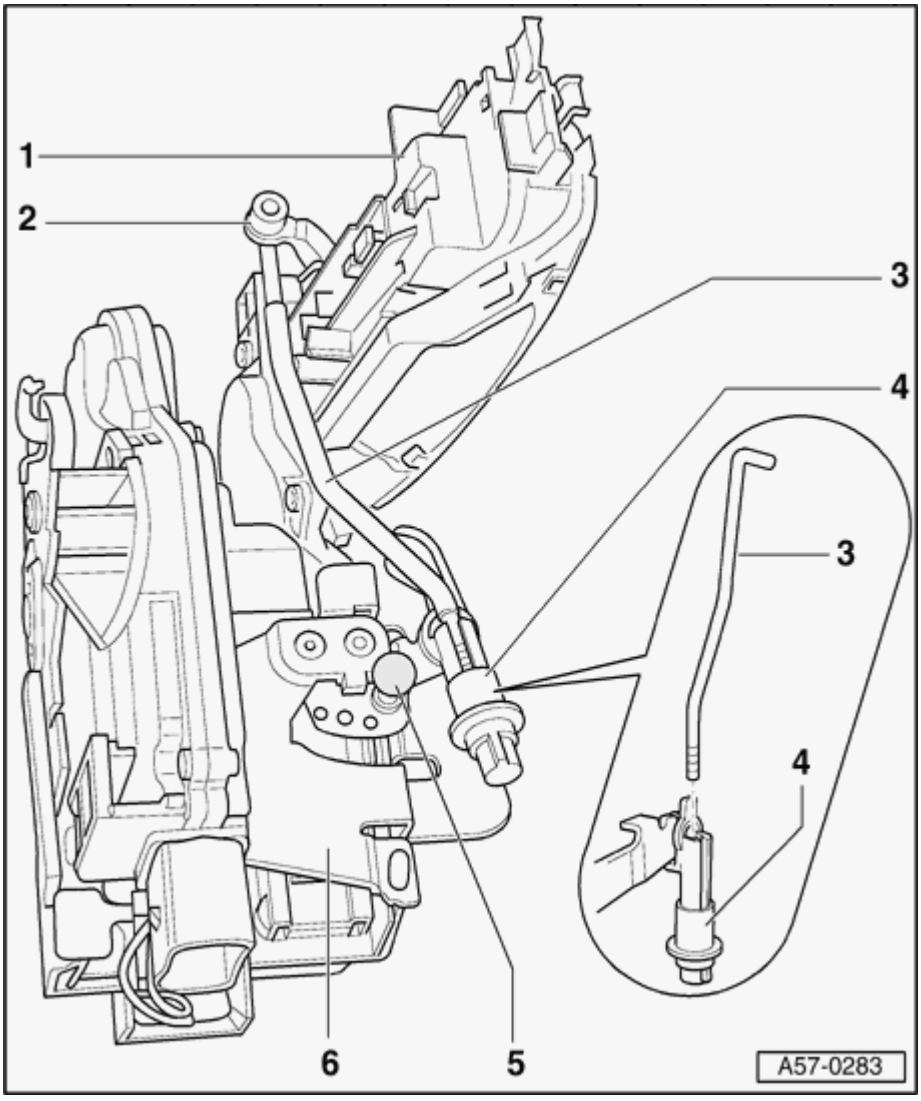


Fig. 112: Door Handle, Removing Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Door handle

2 - Clip

- When disassembling door handle - **1** - , unclip operating rod - **3** - here.

3 - Operating rod

- Before removing door handle, disengage at clip - **2** -.
- After installing a new door lock, first insert operating rod into casing and engage.
- Only then pull securing pin - **5** - from door lock.

4 - Casing

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- To engage operating rod - **3** - , slide casing - **4** - upward.

5 - Securing pin

- Only available as replacement part.
- Pull out after installing operating rod - **3** -.

6 - Door lock

- Removal --> **Door handle and door lock - front, assembly overview**.

Disengage mount for door handle

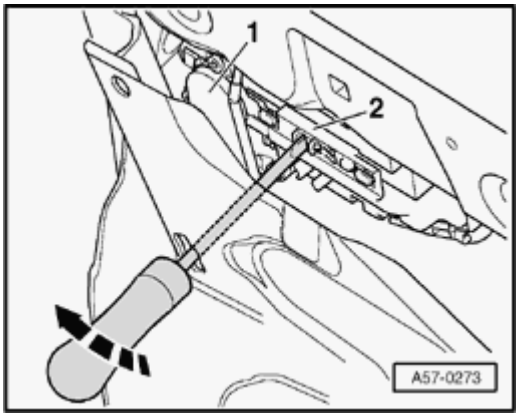


Fig. 113: Disengage Mount For Door Handle
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Door trim as well as window frame and window regulator removed.
- Insert screwdriver through door plate and release slider - **2** - from door handle - **1** - in direction of arrow.

Removing trim

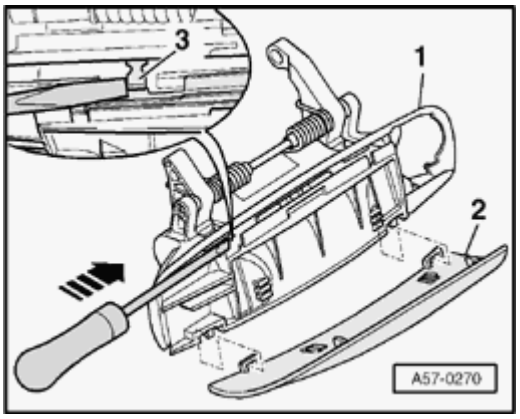


Fig. 114: Removing Trim
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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- To remove, pull up door handle - **1** - , slide out locking mechanism - **3** - in longitudinal direction using small screwdriver.
- Disengage trim - **2** - at top on the sides and remove downward from door handle.
- Installation is the reverse order of removal.

Door lock, removing

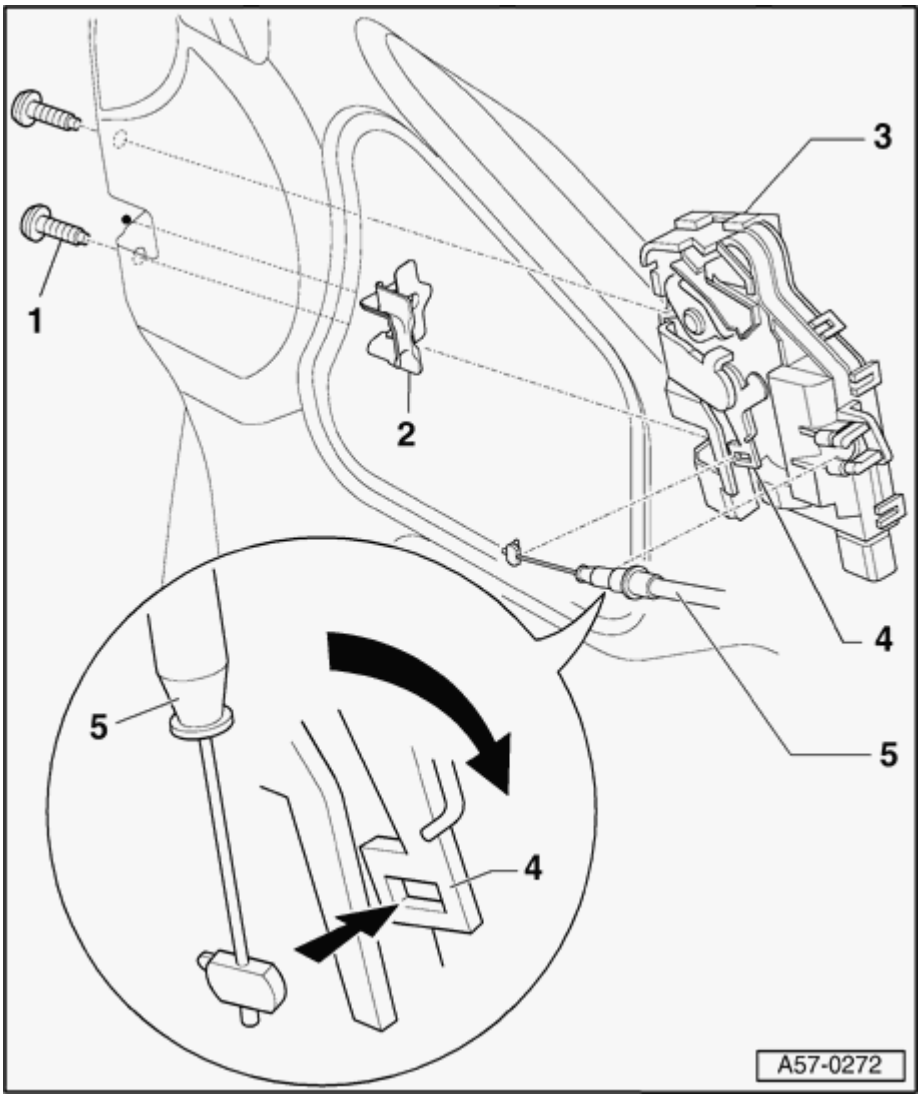


Fig. 115: Door Lock, Removing Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Socket head bolt M8

- 20 Nm

2 - Base plate

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3 - Door lock

- Door trim removed.
- Window frame and window regulator removed.
- Disconnect electrical harness connector at door lock.
- If the same door lock is installed again, disengage operating rod at door handle.
- If door lock is being replaced, disengage operating rod at door lock **Engaging operating rod in door lock**.
- Unclip operating rod at casing from door lock.
- Unscrew multi-point bolts - **1** - and remove door lock.

4 - Release lever

5 - Bowden cable for interior door mechanism

- To install, first insert vertically into release lever as shown in the magnified area of illustration, then swivel 90° and clip into door lock to secure.

Engaging operating rod in door lock

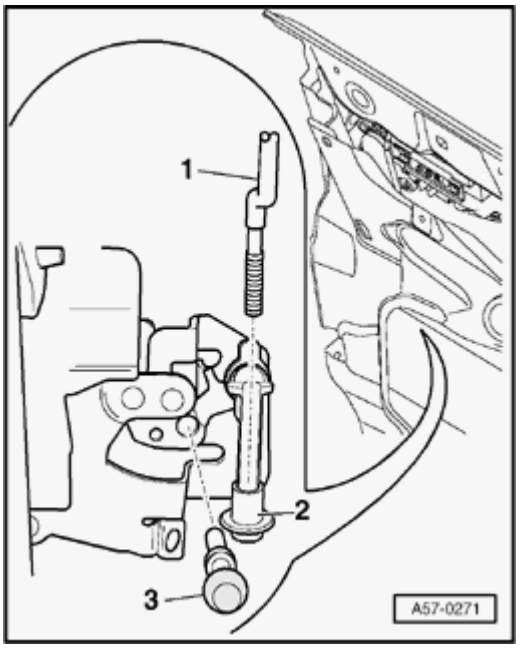


Fig. 116: Engaging Operating Rod In Door Lock
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- When installing a new door lock, clip operating rod - **1** - into casing.
- Move slide - **2** - of casing upward to engage operating rod.
- Pull securing pin - **3** - out of door lock.

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CENTRAL LOCKING SYSTEM

Component overview (Sedan)

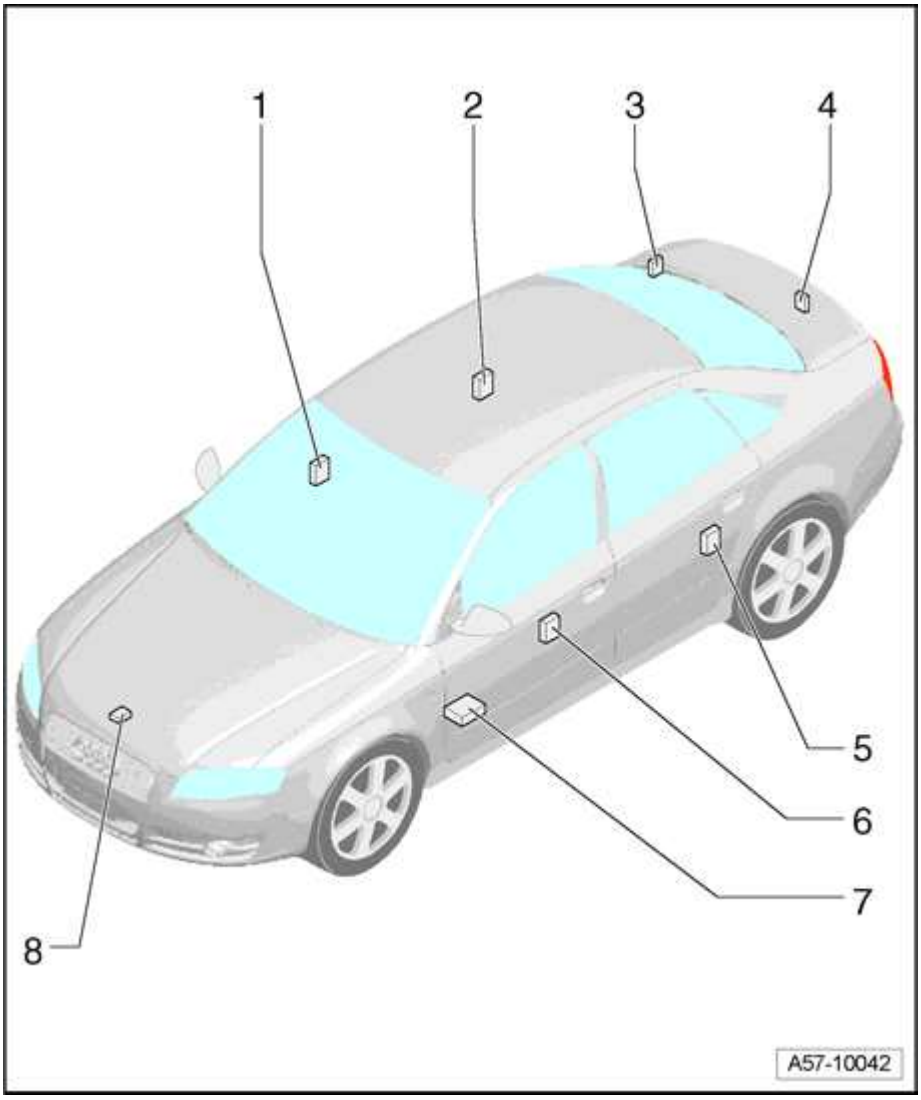


Fig. 117: Central Locking System Component Overview (Sedan)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Front Passengers Door Control Module J387

- Integrated in window regulator.

2 - Right Rear Door Control Module J389

- Integrated in window regulator.

3 - Fuel Tank Lid Unlock Motor V155

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- Removal **Removing Fuel Tank Lid Unlock Motor V155**

4 - Rear Lid Unlock Motor V139

5 - Left Rear Door Control Module J388

- Integrated in window regulator.

6 - Drivers Door Control Module J386

- Integrated in window regulator.

7 - Comfort System Central Control Module J393

- Before removing, disassemble left front seat
- Remove lower A-pillar trim. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
- Remove lower A-pillar trim. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
- Removal **Removing Comfort System Central Control Module J393**

8 - Front Hood Switch F266

- Component location in lock carrier

Removing Comfort System Central Control Module J393

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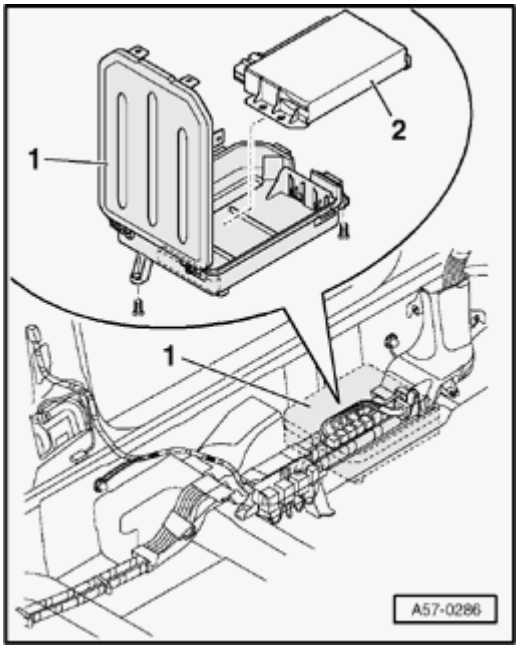
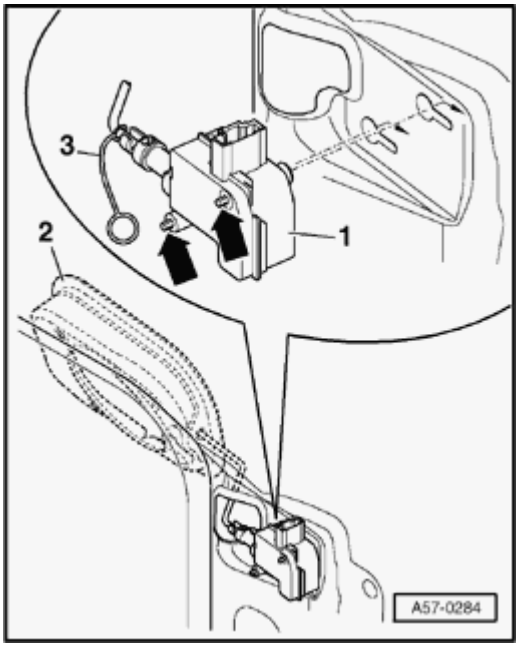


Fig. 118: Removing Comfort System Central Control Module J393
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Left front seat and lower A- pillar trim removed.
- Ignition switched off.
- Open box - **1** - for control module.
- Disconnect harness connector from control module - **2** - and remove it.

Removing Fuel Tank Lid Unlock Motor V155



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Fig. 119: Removing Fuel Tank Lid Unlock Motor V155
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Disconnect electrical connector.
- Loosen bolts - **arrows** - using special tool T10010, slide actuator - **1** - toward front and remove.
- Before installing actuator, emergency release - **3** - must be slid over the locking pin.
- Locking pin of actuator must move cleanly into closed fuel filler flap - **2** -.

Component overview (Avant)

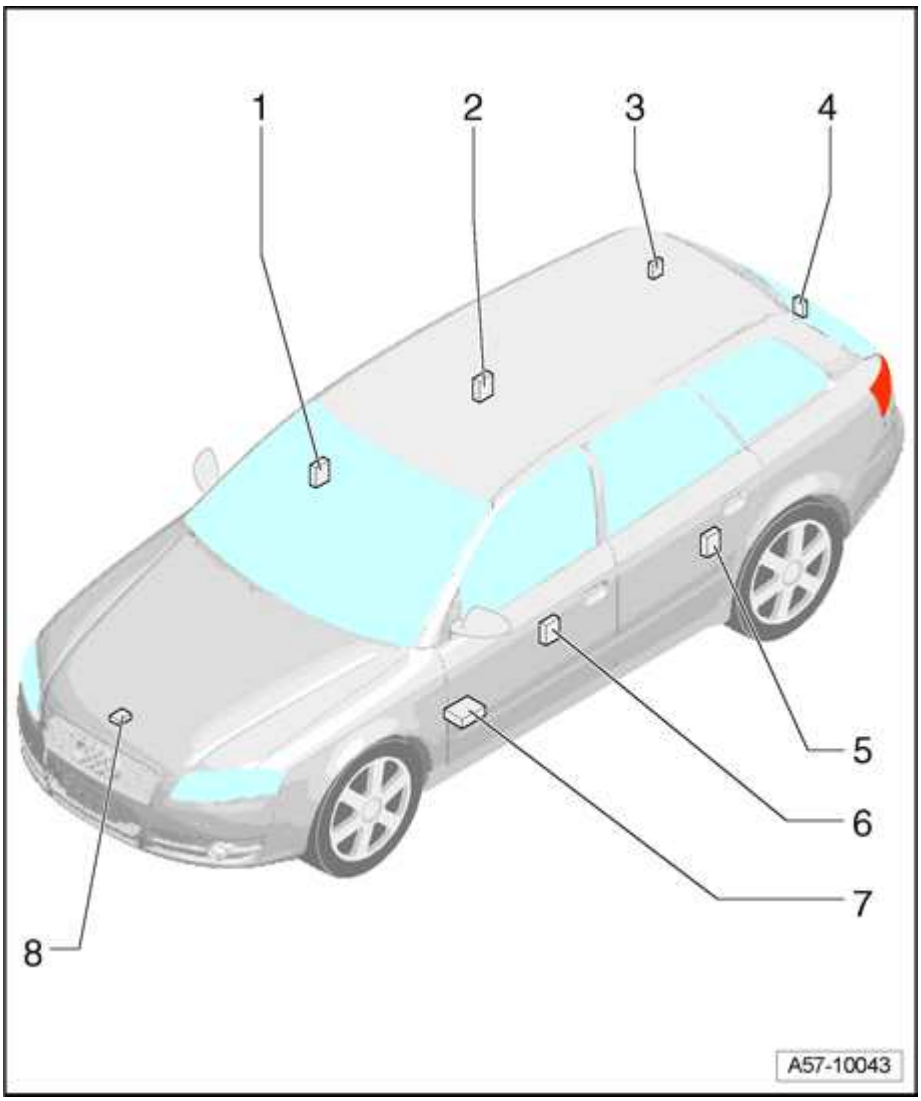


Fig. 120: Central Locking System Component Overview (Avant)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Front Passengers Door Control Module J387

- Integrated in window regulator.

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2 - Right Rear Door Control Module J389

- Integrated in window regulator.

3 - Fuel Tank Lid Unlock Motor V155

- Removal **Removing Fuel Tank Lid Unlock Motor V155**

4 - Rear Lid Unlock Motor V139

5 - Left Rear Door Control Module J388

- Integrated in window regulator.

6 - Drivers Door Control Module J386

- Integrated in window regulator.

7 - Comfort System Central Control Module J393

- Before removing, disassemble left front seat
- Remove lower A-pillar trim. -->
  - **72 - SEAT - FRAMES**
  - **72 - SEAT - FRAMES** for BODY INTERIOR - CABRIOLET
- Remove lower A-pillar trim. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
- Removal **Removing Comfort System Central Control Module J393**

8 - Front Hood Switch F266

- Component location in lock carrier

Repairing the central locking system

- Central locking system in the A4 operates electrically instead of pneumatically as before.
- Actuators in doors are integrated in the door lock and have 2 motors.
- Actuators cannot be replaced separately.
- The first motor locks the door and the second motor locks the interior door mechanism (Safe function).
- Now, doors also can no longer be opened from the interior.
- Actuators of fuel filler flap and rear lid have one motor each and cannot be replaced individually.
- After an accident in which the airbag deploys, the central locking system control module opens any doors which were locked.

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- Central locking system control module is located in front of drivers seat, at left, under floor mat.

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58 REAR DOORS/DOOR COMPONENTS

REAR DOORS

Window frame and window regulator, removing and installing

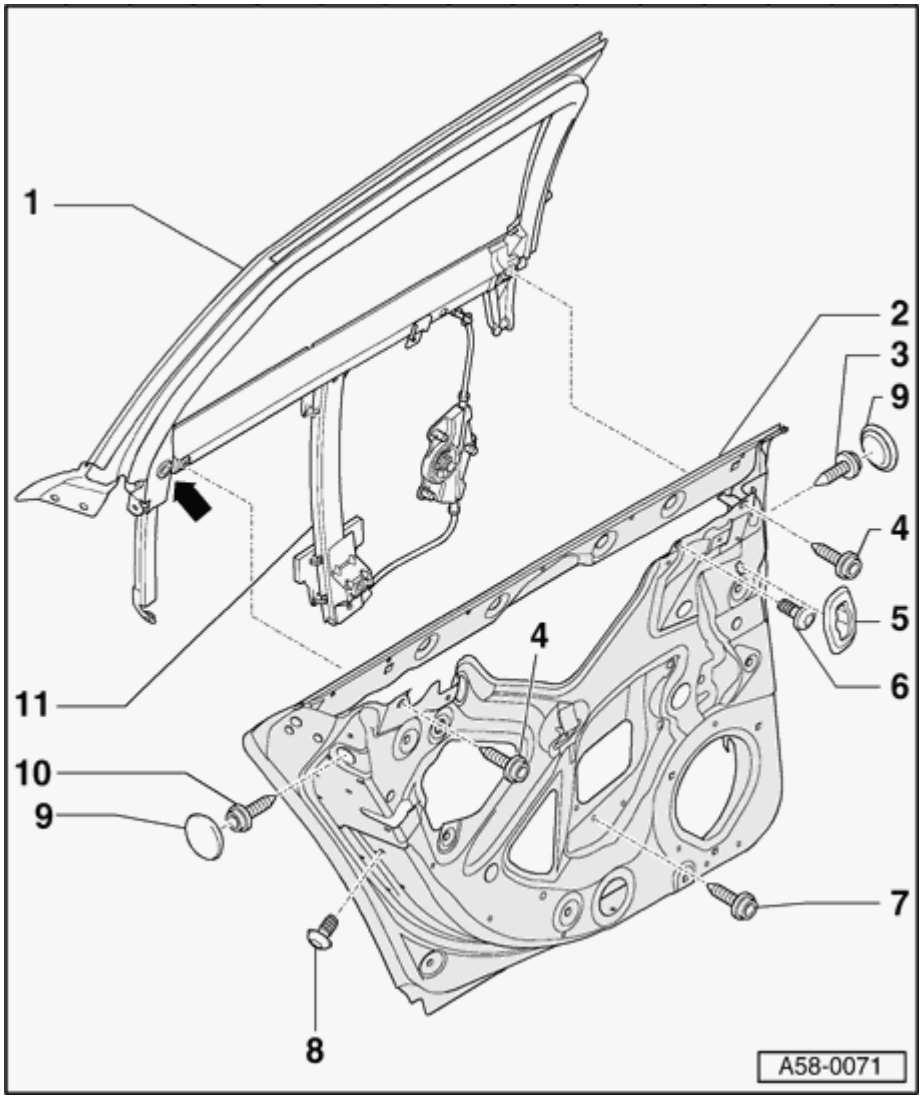


Fig. 121: Window Frame And Window Regulator Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Window frame

- **Removing:**
- Remove door trim.
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

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; front door trim

- Remove window regulator motor **Window regulator motor, removing and installing** or manual window regulator **Manual window regulators, removing and installing**.
- Disconnect electrical harness connectors.

- Remove bolts - **7** - and - **8** -.
- Remove bolts - **3** - - **4** - ; - **6** - and - **10** - and lift window frame with window regulator upward and out of door.
- Installation:
- Insert window frame and window regulator into door from above.

- Knock in the upper profile halves of door-side gasket into window frame at top.
- Loosely screw in mounting bolts - **4** - at front and rear.
- Then, loosely screw in bolts in the sequence - **3** - ; - **10** - ; - **8** -.
- Tighten collared shoulder bolts - **4** - hand tight.

- Lightly press window frame - **1** - inward at top.
- Tighten bolts - **3** - and - **10** - to 32 Nm.
- Tighten collared shoulder bolts - **4** - to 32 Nm.
- Tighten bolt - **8** - to 10 Nm.

- Tighten locating bolt - **arrows** - in window frame to 32 Nm.
- Knock in lower half of door seal into inner door plate.
- Secure window regulator rail with bolt - **7** - to inner door plate.
- Press threaded pin of window regulator reel through inner door plate until it engages **Window regulator motor, removing and installing**.

Window regulator motor, removing and installing

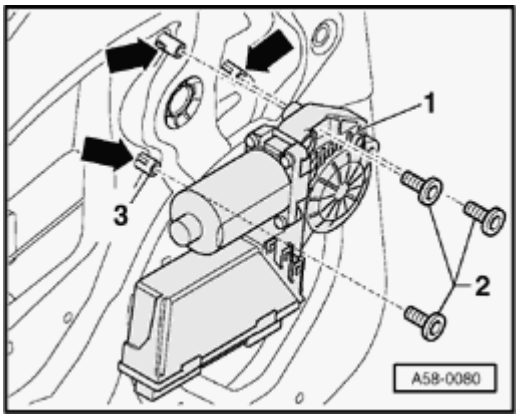


Fig. 122: Window Regulator Motor Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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- To remove, unscrew bolts - **2** - and remove window regulator motor.
- Install window regulator motor --> **Motor for window regulator, removing and installing**.

Manual window regulators, removing and installing

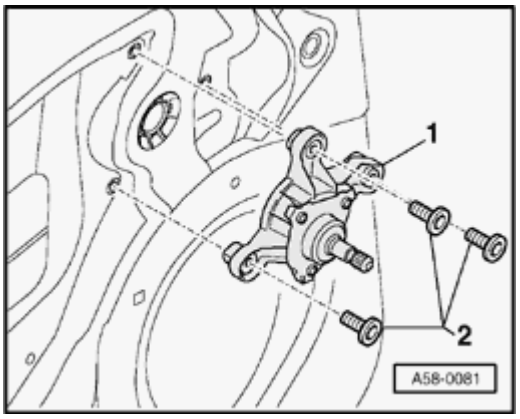


Fig. 123: Unthreading Bolts And Removing Manual Window Regulator From Inner Door Plate
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Unthread bolts - **2** - and remove manual window regulator from inner door plate.
- Install manual window regulator --> **Manual window regulators, removing and installing**.

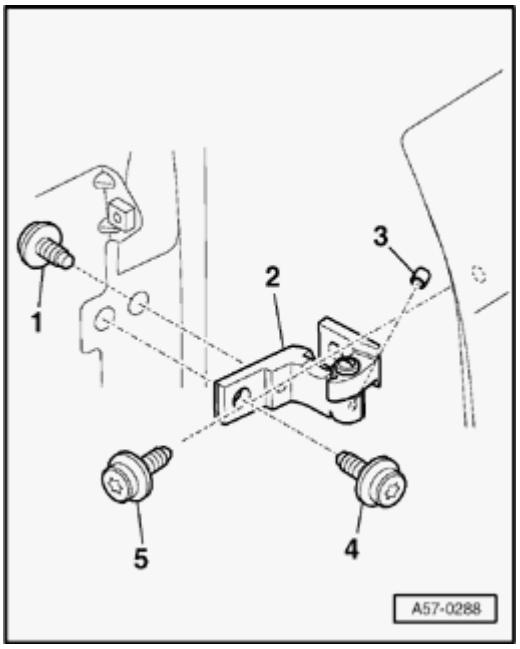


Fig. 124: Upper Door Hinge Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Upper door hinge

- Torx bolt T45 - **1** - (installed from interior of vehicle) 32 Nm.

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- Top door hinge - **2** -.
- Cover cap - **3** -.
- Torx bolt T45 - **4** - 32 Nm.
- Fitting bolt - **5** - T45 32 Nm.

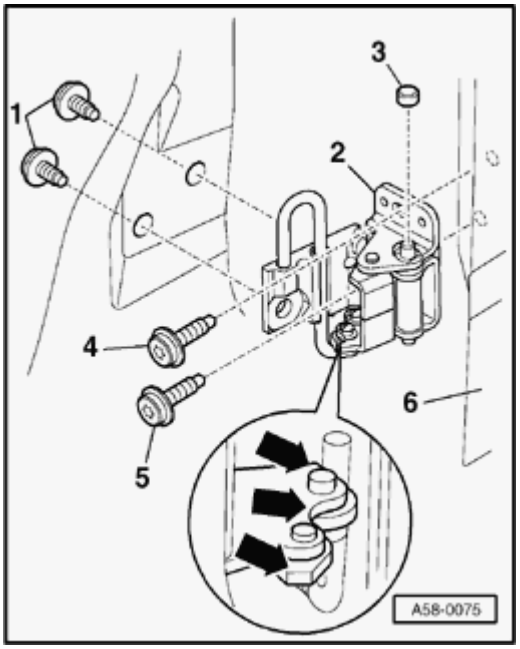


Fig. 125: Removing/Installing Lower door hinge
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Lower door hinge

- B-pillar trim removed.
- Torx bolts T45 - **1** - 32Nm bolted to B-pillar from interior of vehicle.
- Lower door hinge - **2** -.
- Cover cap - **3** -.
- Torx bolt T45 - **4** - 32Nm.
- Fitting bolt T45 - **5** - 32Nm.
- Re-grease lubrication points - **arrows** - in service interval.
- Front door - **6** -.

Window regulator and door window, separating

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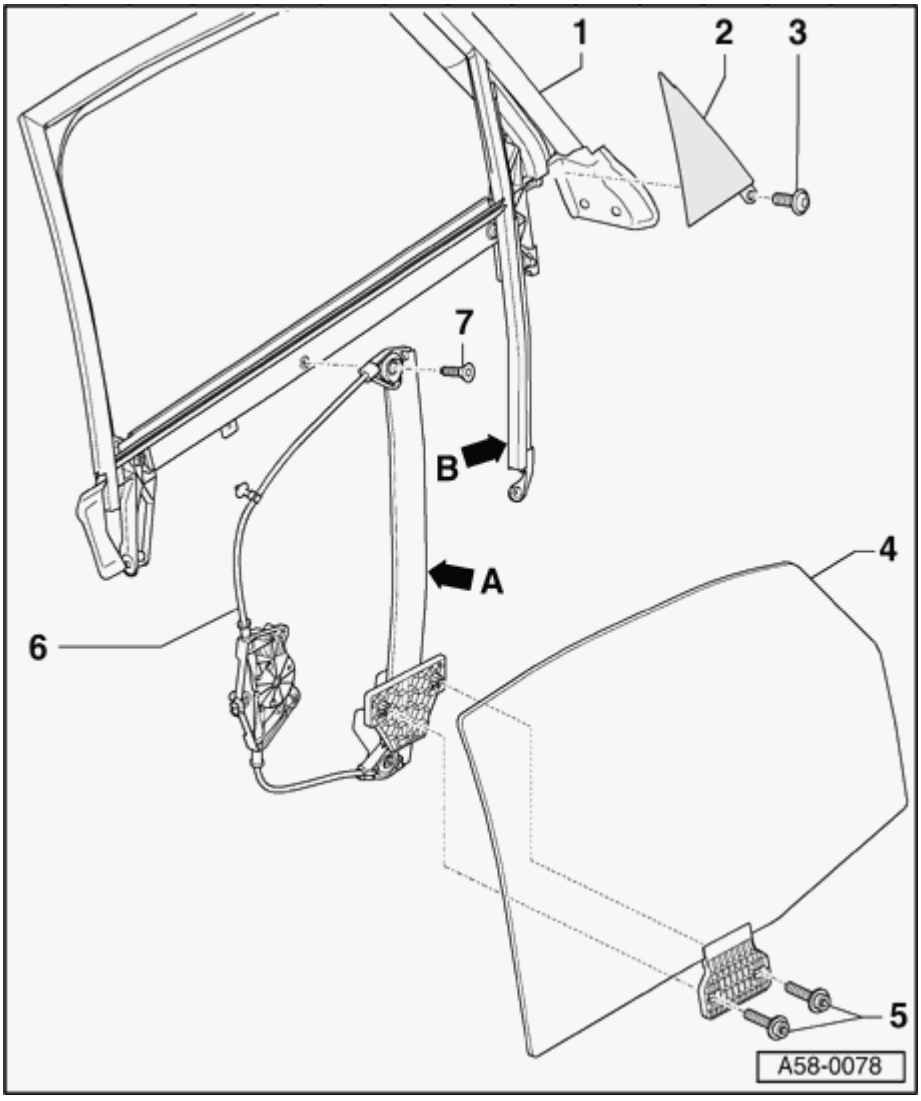


Fig. 126: Window Regulator And Door Window, Separating Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Window frame

- **Removing:**
- Remove door trim.
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  ; front door trim
- Window frame removed together with window regulator from door --> **Window frame and window regulator, removing and installing**.
- Door window - **4** - removed

- To remove, unscrew countersunk screw - **7** - and remove window regulator from window frame.

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- Installation:
- When installing, make sure that guide rail, arrow - **A** - , runs parallel to guide arrow - **B** -.
- Tighten bolts - **7** - to 6 Nm.

2 - Triangular panel

- Before removing, disassemble window frame and window regulator.
- Unscrew bolt - **3** - and remove panel sideways.

3 - Countersunk screw

- 5Nm

4 - Window

- **Removing:**
- Drive down door window fully.
- Unscrew bolts - **5** - and remove door windows from window regulator.
- Installation:

- Insert window into window regulator.
- Screw bolts - **5** - into window regulator, but do not tighten yet.
- Drive door window upward into window frame.
- Pull door window toward front into window guide on window frame at B-pillar and tighten bolts - **5** - to 4Nm.

5 - Socket head bolt

- 4Nm$^{-0.5Nm}$

6 - Window regulator

- Window frame removed together with window regulator from door --> **Window frame and window regulator, removing and installing**.
- Door window removed.
- To remove, unscrew countersunk screw - **7** - and remove window regulator from window frame.

Motor for window regulator, removing and installing

Removing

- Door trim removed. -->
  - **70 - INTERIOR TRIM**

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- **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

NOTE:

- **Motor for window regulator can be removed or installed in every position of motor or side window.**
- **Before removing motor, disconnect electrical harness connectors.**

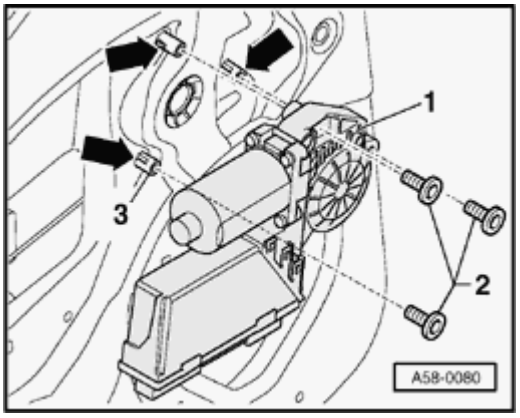


Fig. 127: Window Regulator Motor Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove Torx bolts - **2** - T30 and remove motor.

Installing

- When installing, make sure that threaded pins - **arrows** - are engaged in inner door plate.
- Slide on window regulator motor -1- and secure with bolts - **2** -.
- Tightening torque 3.5 Nm

NOTE:

- **Only switch ignition on and off after installing motor and connected wires.**
- **Then move door window upward to stop and keep pressing switch for window regulator for approx. 2 seconds longer.**
- **This position is the base position and the high- and low-running function is activated.**

Manual window regulators, removing and installing

- Door trim removed. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

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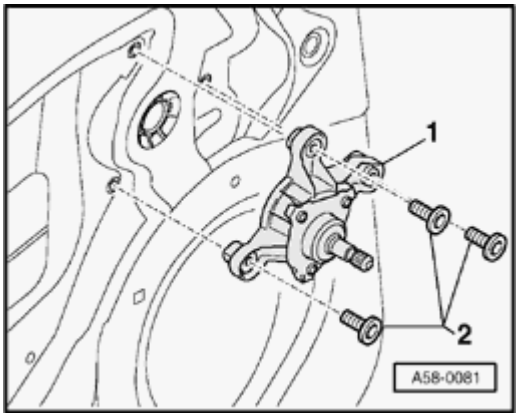


Fig. 128: Unthreading Bolts And Removing Manual Window Regulator From Inner Door Plate
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Unthread bolts - **2** - and remove manual window regulator from inner door plate.
- When installing, tighten bolts to 3.5 Nm.

Rear door, adjusting

Adjustment in longitudinal direction

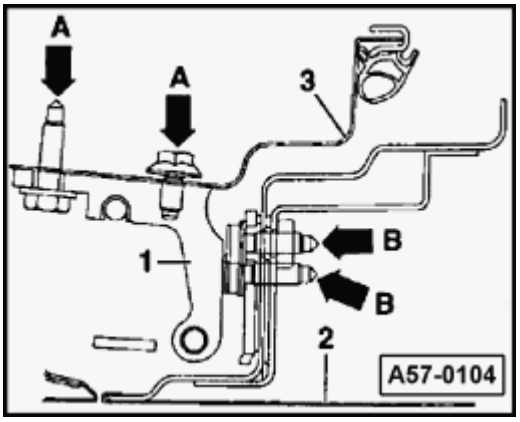


Fig. 129: Adjustment In Longitudinal Direction
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Adjustment in longitudinal direction is performed by loosening hinge bolts - **arrow A** - of B-pillar at top of door hinge or/and bottom and sliding doors - **2** - (over-sized holes in hinge or in B-pillar).
- Tightening torque: 32 Nm
- Door hinge - **1** -.
- A-pillar - **3** -.
- Door - **2** -.

NOTE:

- **Illustration shows lower door hinge.**

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Adjustment to center of vehicle

NOTE:

- **A fitting bolt is installed at each upper and lower door hinge (door side).**
- **When repairing, an adjustment is therefore not necessary under normal circumstances.**
- **If an adjustment should become necessary anyway, fitting bolts can be replaced with bolts of the same size, length and toughness .**

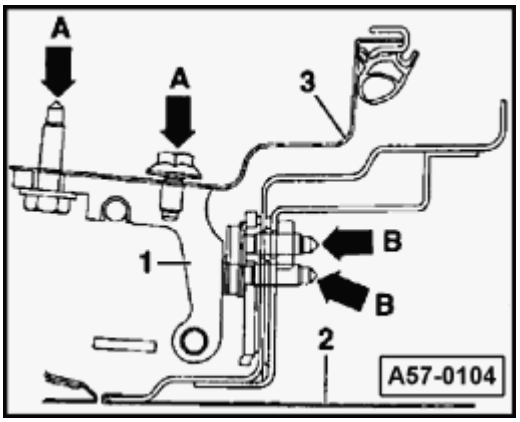


Fig. 130: Adjustment In Longitudinal Direction
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- The adjustment to vehicle center occurs by loosening hinge bolts (arrow -B-) at top and/or at bottom of door and shifting the doors (elongated holes in hinge).
- Tightening torque: 32 Nm

NOTE:

- **In rear portion of door, adjust door depth (relative to vehicle center) via striker.**

Adjusting via striker

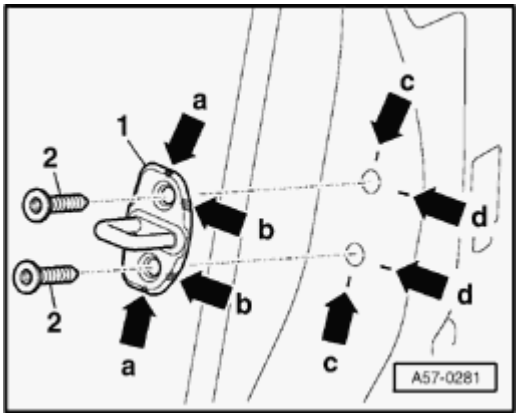


Fig. 131: Adjusting Via Striker
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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- Loosen bolts - **2** -.
- Use the markings (- **arrows a** - and - **arrows c** -) for side adjustment.
- Slide striker - **1** - until the door is flush with the contour of the chassis.

NOTE:

- **Door may only be adjusted for depth (towards car interior) and not for height.**

- Use the markings (- **arrows b** - and - **arrows d** -) for height adjustment.
- Striker must align in door lock center for correct adjustment.
- Tighten bolts to 25 Nm.

Adjustment dimensions for rear door window frame

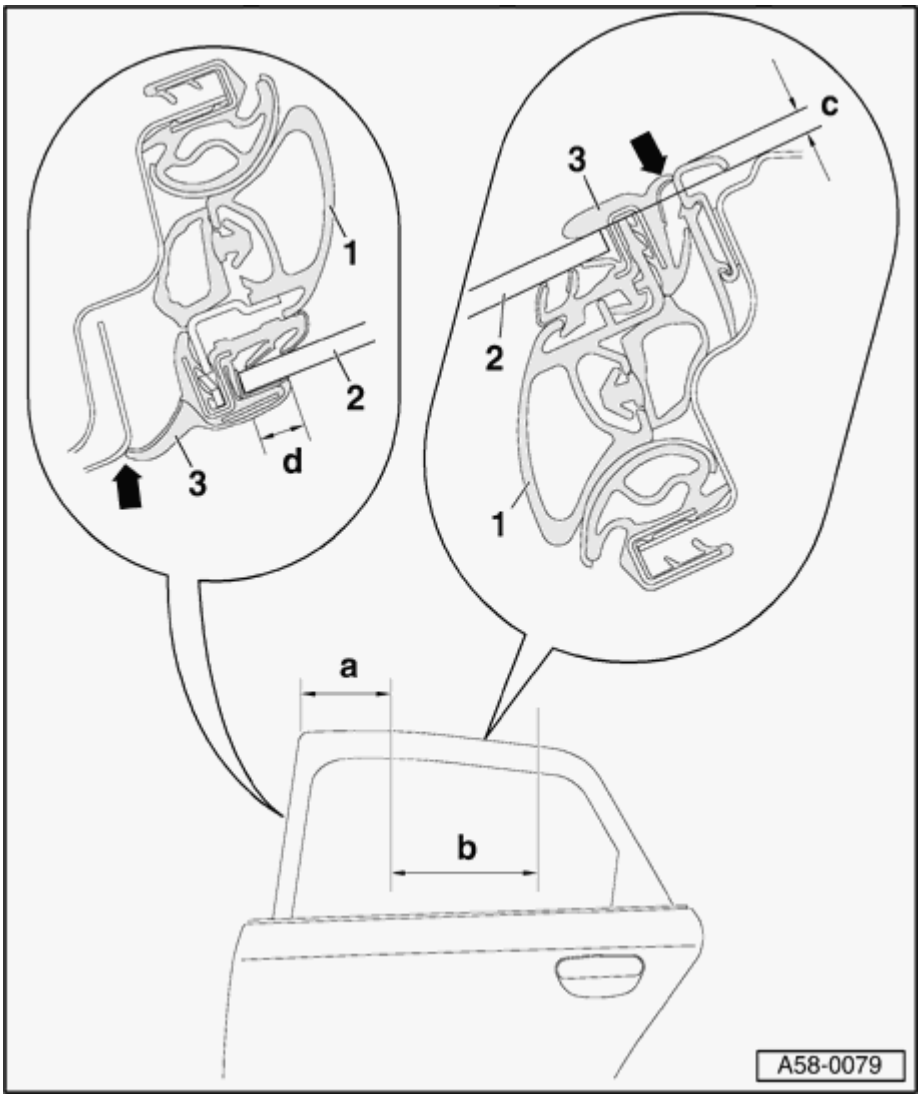


Fig. 132: Adjustment Dimensions For Rear Door Window Frame
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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1 - Window frame

- For correct door adjustment, sealing lip must make clean contact to contours at roof frame and at A-pillar, see - **arrows** -.

2 - Window

- Adjust door until the result is dimension - **c** - = 4 mm in area - **b** - = 300 mm.
- Dimension - **c** - can be tested further using a gauge.
- Dimension - **a** - of front door edge starting at B-pillar = 200 mm.

3 - Window frame

- Door window - **2** - must drive as far as dimension - **d** - = 7.5mm^{-1mm} into window frame at B-pillar.

Adjusting using Door adjustment template T40038/1

Special tools, testers and auxiliary items required

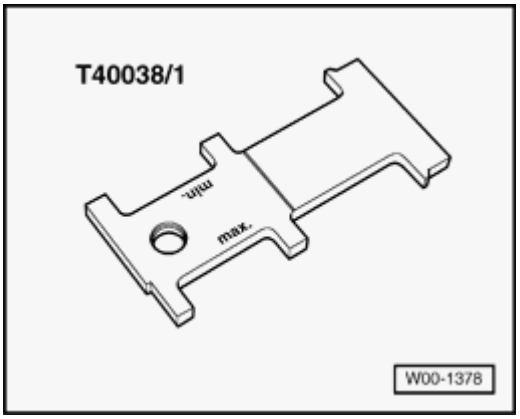


Fig. 133: Template T40038
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Template T40038
  - Use the door adjustment Template T40038 as described in the following for testing (e.g. for wind noises) and for adjusting door.

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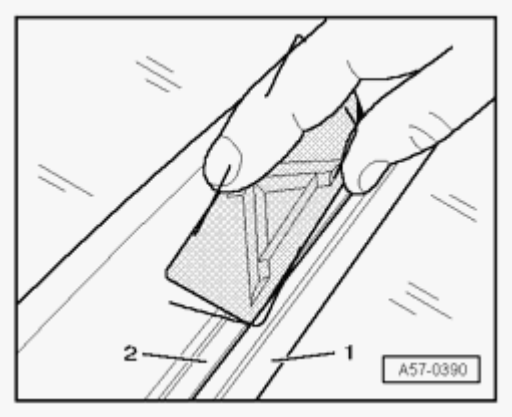


Fig. 134: Using Standard Bank Card To Drive Off Contact Area Of Sealing Lip To Roof Trim Molding With Light Pressure
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Testing sealing lip/roof trim molding contact

- Using a standard bank card, drive off contact area of sealing lip to roof trim molding with light pressure.
- When doing this, card must not sink in between sealing lip - **1** - and roof trim molding - **2** -.

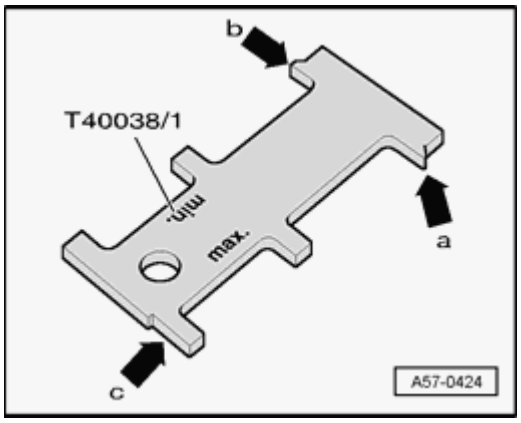


Fig. 135: Identifying Template Has Points Of Different Lengths At So That Side Adjustment Of Door Can Be Tested
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Template has points of different lengths at - **arrows a** - and - **arrows b** - so that side adjustment of door can be tested.
- The upper point - **arrow a** - on the side with the cut-out - **arrow c** - at bottom is the longer side (max. marking).
- This side is used to check whether the window frame is located too far outward in relation to the chassis.

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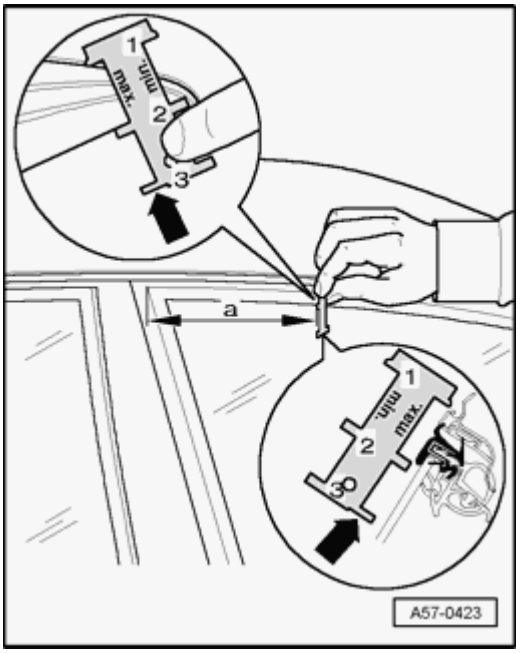


Fig. 136: Positioning Template With Cut-Out Facing Door Window
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Position template at dimension - **a** - = 200 mm and with cut-out - **arrow** - facing door window
- Make sure that points - **1** - and - **3** - make contact.
- At point - **2** - of template, there must be a gap.
- In this position (max), doors are adjusted to farthest outward point within tolerance range.

- If there is no gap at point - **2** - , or there is a gap at point - **1** - , the window frame is set too far outward and must be adjusted.

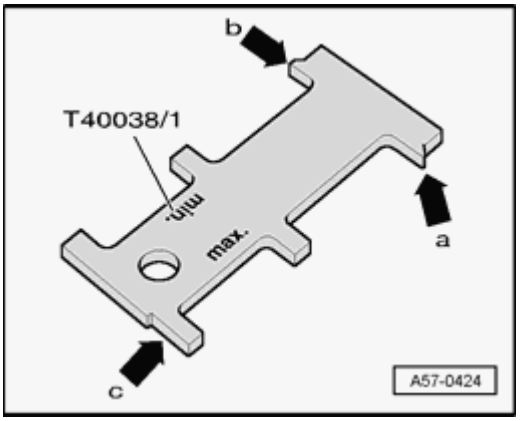


Fig. 137: Identifying Template Has Points Of Different Lengths At So That Side Adjustment Of Door Can Be Tested
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- The upper point - **arrow b** - opposite the side with cut-out - **arrow c** - at bottom is the shorter side (min.

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marking).

- This side is used to check whether the window frame is located too far inward in relation to the chassis.
- Position template at dimension - **a** - = 200 mm and with cut-out - **arrow** - turned away from door window as depicted in magnified areas of illustration.

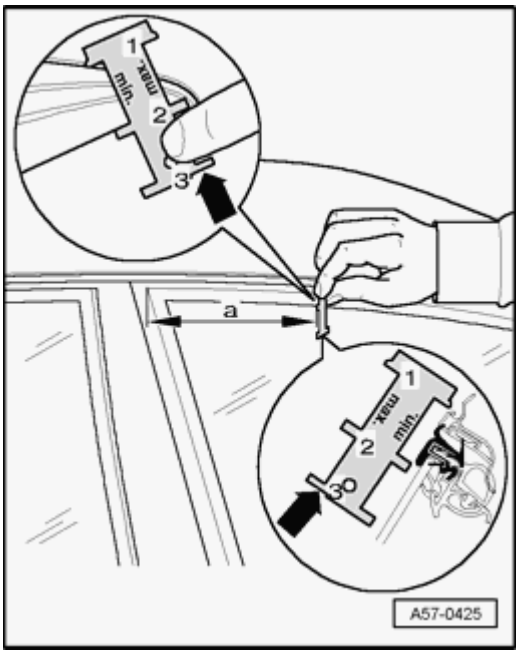


Fig. 138: Making Sure Points Make Contact On Door Window
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Make sure that points - **2** - and - **3** - make contact on door window.
- At point - **1** - of template, there must be a gap.
- In this position (min), doors are adjusted to farthest inward point within tolerance range.
- If point - **1** - has no gap, or if template cannot be brought into contact at point - **2** - , window frame is set too far inward and must be adjusted.

Panel gap dimensions

Special tools, testers and auxiliary items required

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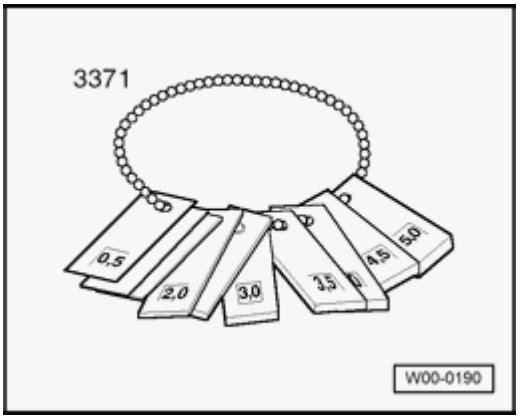
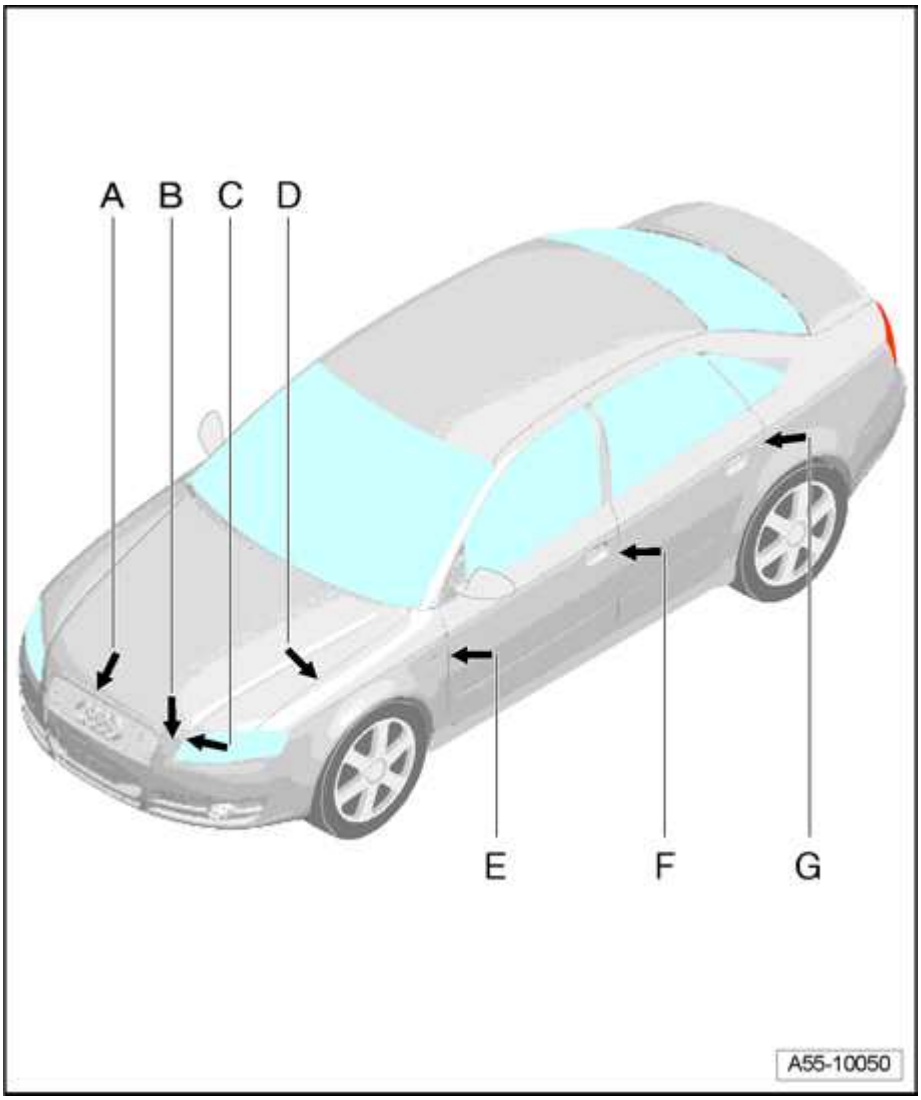


Fig. 139: Identifying Adjustment Gauge 3371
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Adjusting gauge 3371



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Fig. 140: Panel Gap Dimensions
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Dimension - **E** - = 3.5 mm ± 0.5 mm
- Dimension - **F** - = 4.5 mm ± 0.5 mm
- Flush adjustment of rear door to front door must be in the range of 0 mm to 1 mm recess
- Flush adjustment of rear door to side panel must be in the range of 0 mm to 1 mm projection

Door handle and door lock - rear, assembly overview

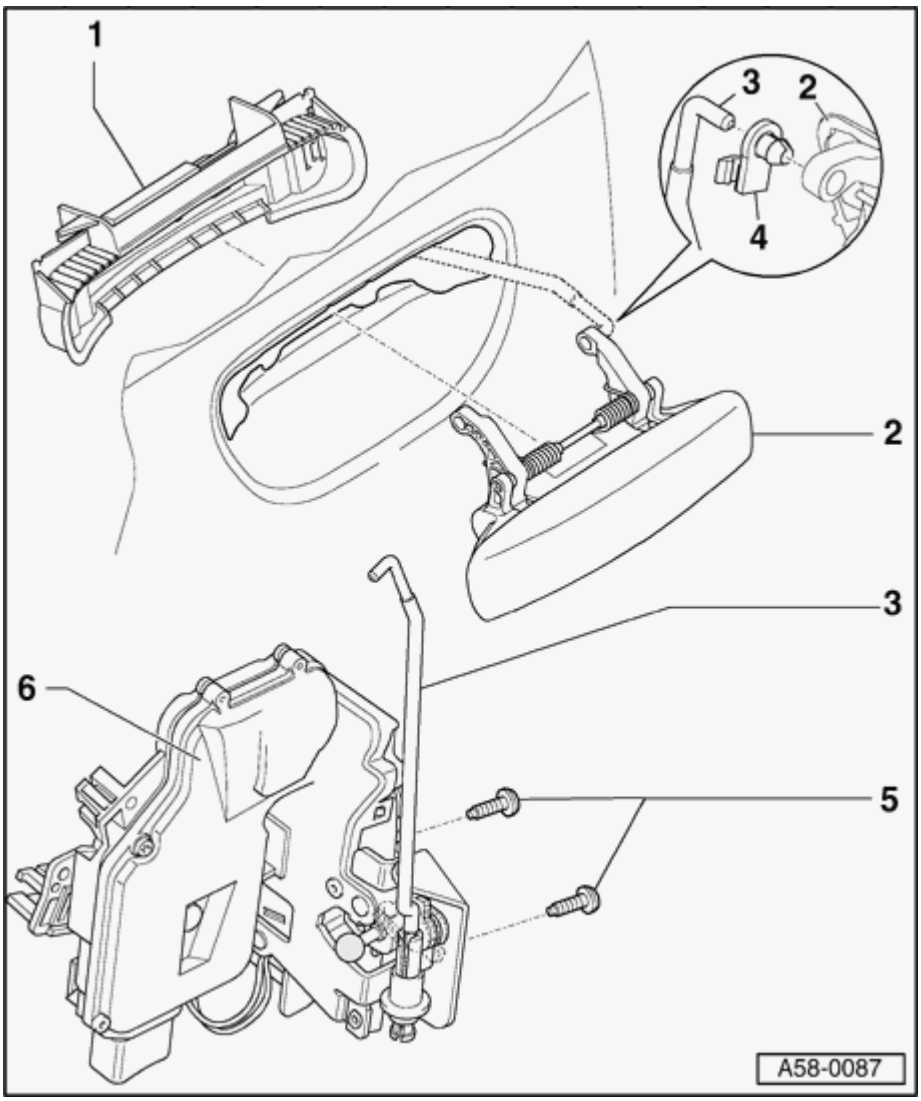


Fig. 141: Door Handle And Door Lock - Rear, Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Mount for door handle

- Releasing **Disengage mount for door handle**.

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2 - Door handle

- Before disassembling, remove window frame and window regulator.
- Removal --> **Window frame and window regulator, removing and installing**.

3 - Operating rod

- Clip into door lock **Engaging operating rod in door lock**.

4 - Clip

- Engage operating rod in clip, swivel clip 90° and engage at operating rod.

5 - Socket-head bolt

- 20 Nm

6 - Door lock

- **Removing:**
- Door trim removed.
- Window frame and window regulator removed --> **Window frame and window regulator, removing and installing**.
- To remove, unscrew multi-point bolts - **5** - and remove door lock downward.

Engaging operating rod in door lock

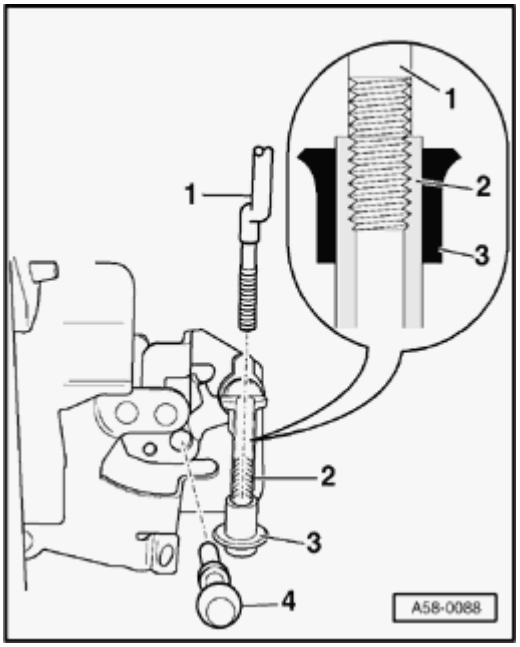


Fig. 142: Engaging Operating Rod In Door Lock

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

- When installing a new door lock, clip operating rod - **1** - into casing - **2** -.
- Move slide - **3** - of casing - **2** - upward to engage operating rod.
- Pull securing pin - **4** - out of door lock.

Door handle, removing

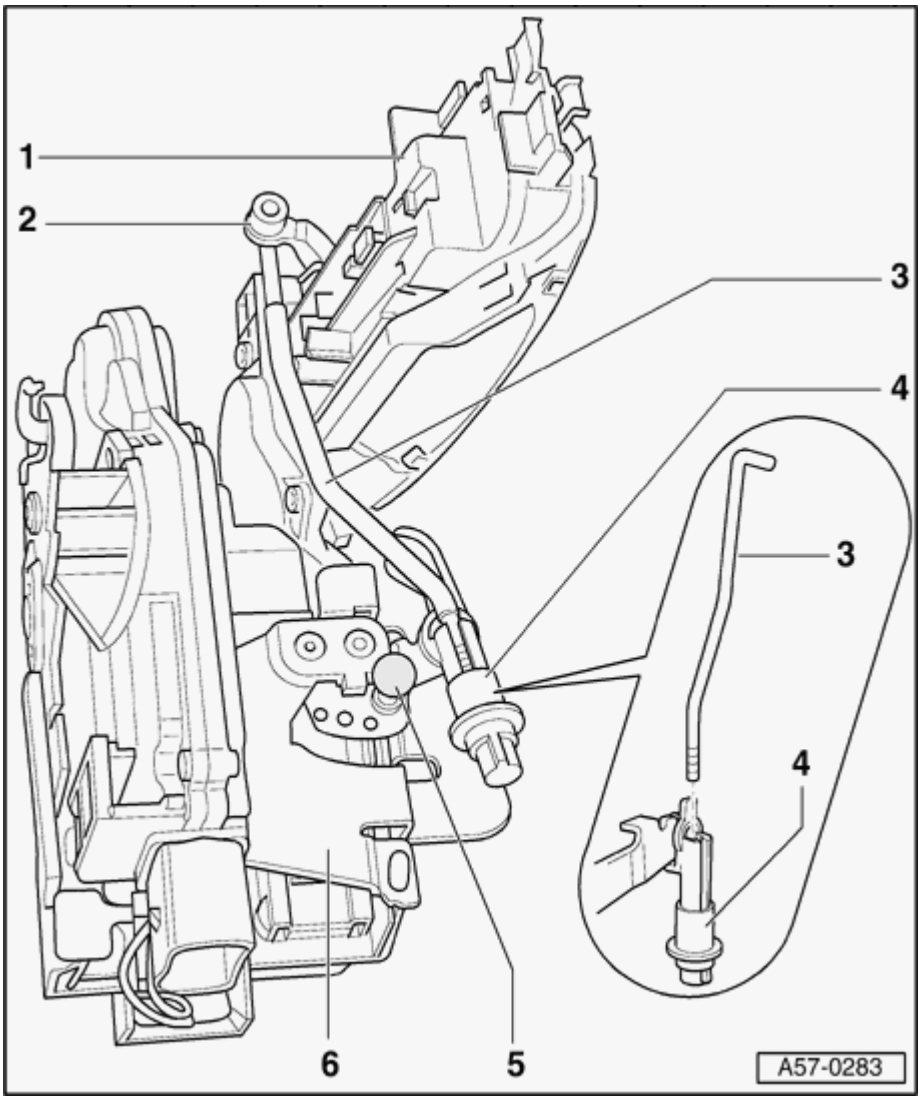


Fig. 143: Door Handle, Removing Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Door handle

2 - Clip

- When disassembling door handle - **1** - , unclip operating rod - **3** - here.

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3 - Operating rod

- Before removing door handle, disengage at clip - **2** -.
- After installing a new door lock, first insert operating rod into casing and engage.
- Only then pull securing pin - **5** - from door lock.

4 - Casing

- To engage operating rod - **3** - , slide casing - **4** - upward.

5 - Securing pin

- Only available as replacement part.
- Pull out after installing operating rod - **3** -.

6 - Door lock

- Removal --> **Door handle and door lock - rear, assembly overview**.

Disengage mount for door handle

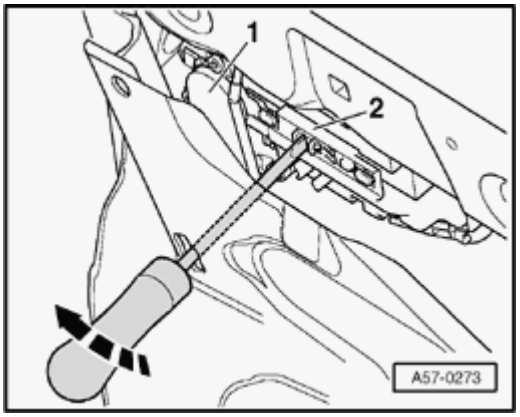


Fig. 144: Disengage Mount For Door Handle
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Door trim as well as window frame and window regulator removed.
- Insert screwdriver through door plate and release slider - **2** - from door handle - **1** - in direction of arrow.

Removing trim

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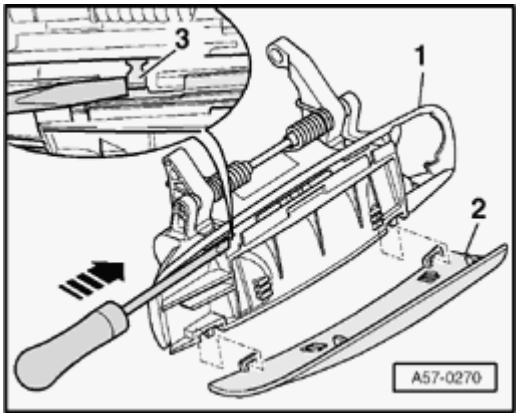


Fig. 145: Removing Trim
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- To remove, pull up door handle - **1** - , slide out locking mechanism - **3** - in longitudinal direction using small screwdriver.
- Disengage trim - **2** - at top on the sides and remove downward from door handle.
- Installation is the reverse order of removal.

Door lock, removing

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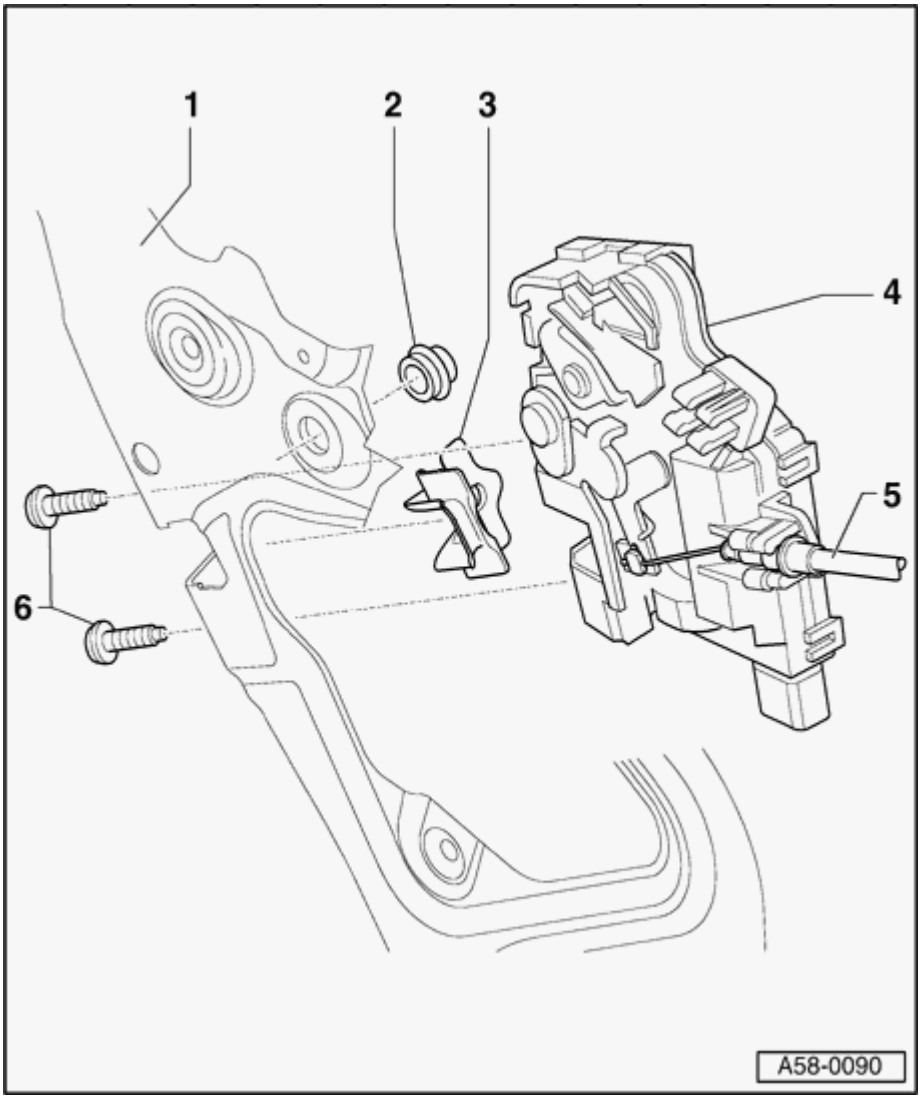


Fig. 146: Door Lock Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Rear doors

2 - Grommet

3 - Base plate

4 - Door lock

- Door trim removed.
- Window frame and window regulator removed.
- Disconnect electrical harness connector at door lock.
- If the same door lock is installed again, disengage operating rod at door handle.

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- If door lock is being replaced, disengage operating rod at door lock **Engaging operating rod in door lock**.
- Unscrew multi-point bolts - **6** - and remove door lock.

5 - Bowden cable for interior door mechanism

- Installing **Engaging Bowden cable in door lock**

6 - Socket head bolt M8

- 20 Nm

Engaging Bowden cable in door lock

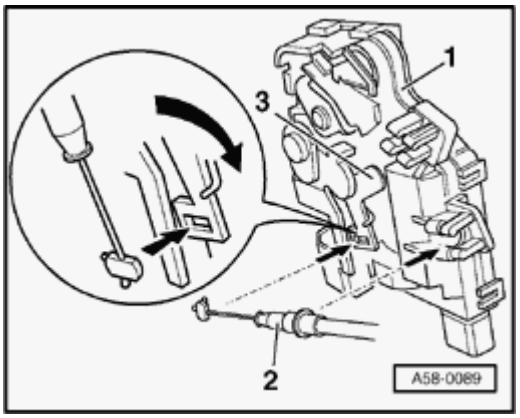


Fig. 147: Engaging Bowden Cable In Door Lock
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- To install, first insert Bowden cable - **2** - vertically into release lever - **3** - as shown in the magnified area of illustration, then swivel 90° and clip into door lock - **1** - to secure.

Engaging operating rod in door lock

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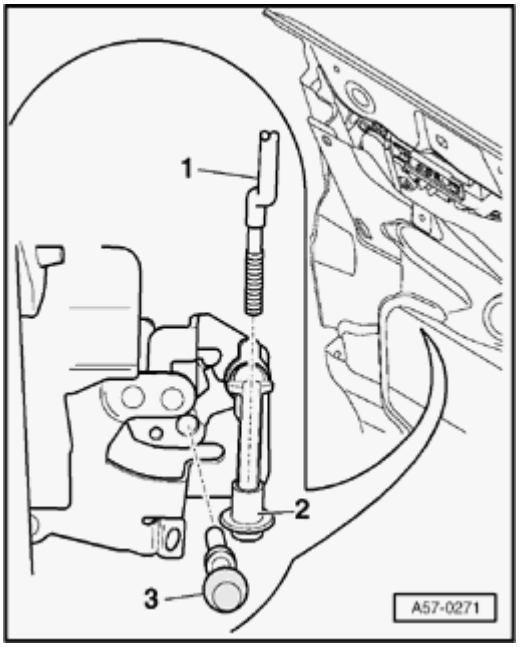


Fig. 148: Engaging Operating Rod In Door Lock
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- When installing a new door lock, clip operating rod - **1** - into casing.
- Move slide - **2** - of casing upward to engage operating rod.
- Pull securing pin - **3** - out of door lock.

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55 - HOOD, LIDS

HOOD

Hood, removing, installing and adjusting (up to model year 2005)

Up to model year 2005

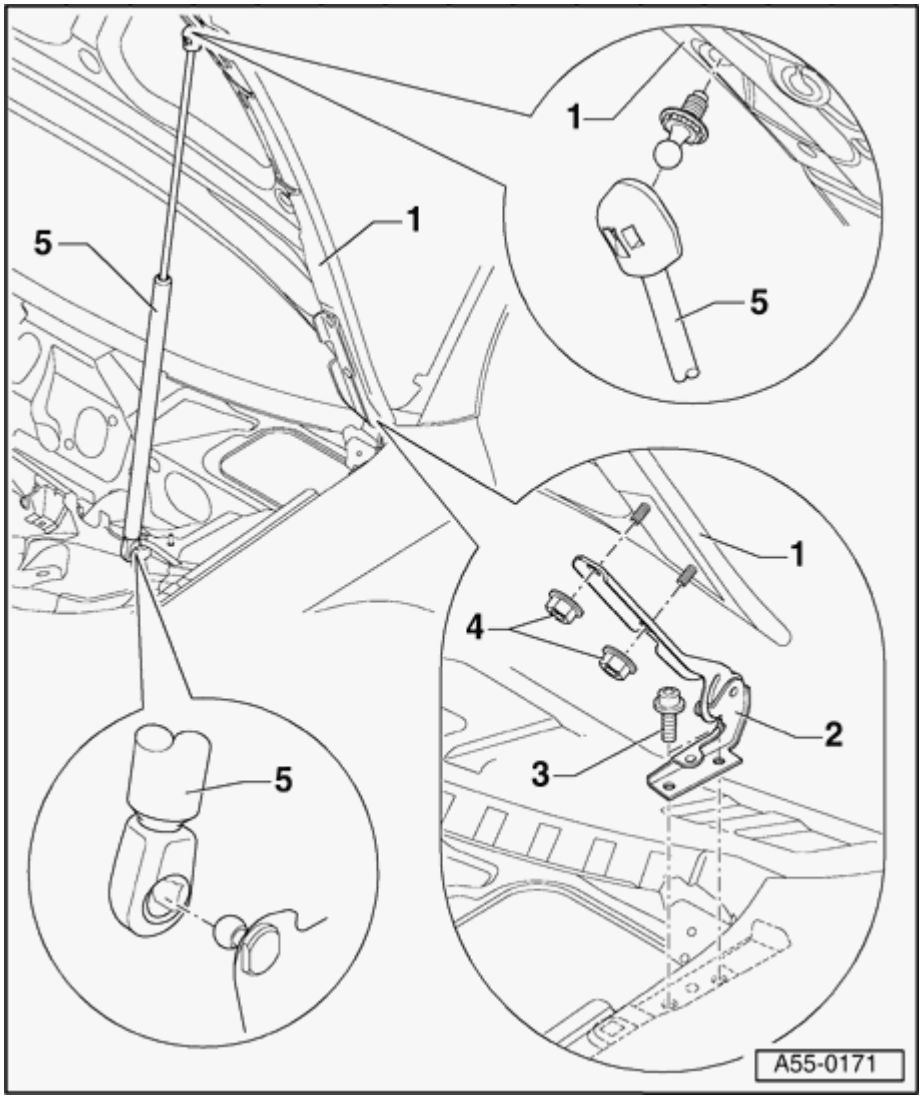


Fig. 20: Hood Remove/Install/Adjusting Components (Up To Model Year 2005)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Hood

- **Removing:**

  - Disconnect line to windshield washer system and unclip line.

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NOTE:

- **A 2nd technician is needed to support and raise the hood.**

- Remove gas-filled strut from hood --> **Gas-filled strut, removing and installing**.
- Remove bolts.
- Remove hood.

- Install in reverse sequence.
- Adjusting:

- Align hood between fenders.
- Adjust height of hood at hood lock --> **Lower portion of hood lock, removing and installing**.
- Hood can be adjusted for height relative to fenders by adjusting buffer stops **Buffer stop for height adjustment**.

2 - Hood hinge

3 - Screw

- 21 Nm

4 - Nut

- 21 Nm

5 - Gas strut

- Removing and installing --> **Gas-filled strut, removing and installing**.

Buffer stop for height adjustment

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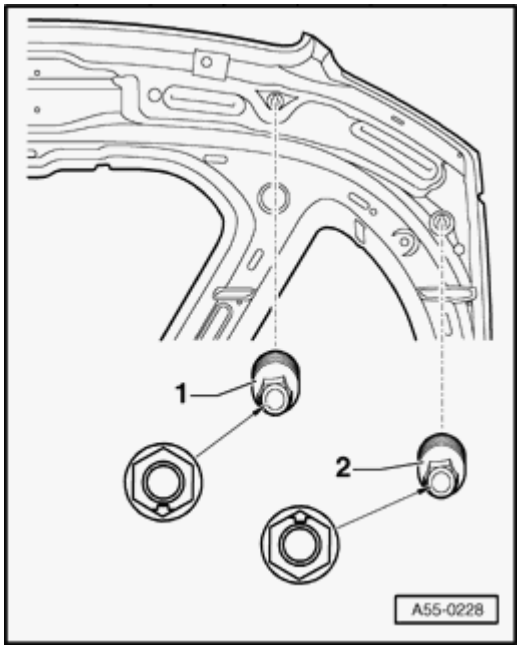


Fig. 21: Buffer Stop For Height Adjustment
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Buffer stops - **1** - and - **2** - must make contact lightly against lock carrier when hood is closed.

NOTE:

- **The buffer stops can be used for adjusting the height of the hood.**

Hood, removing, installing and adjusting (from model year 2006)

From model year 2006

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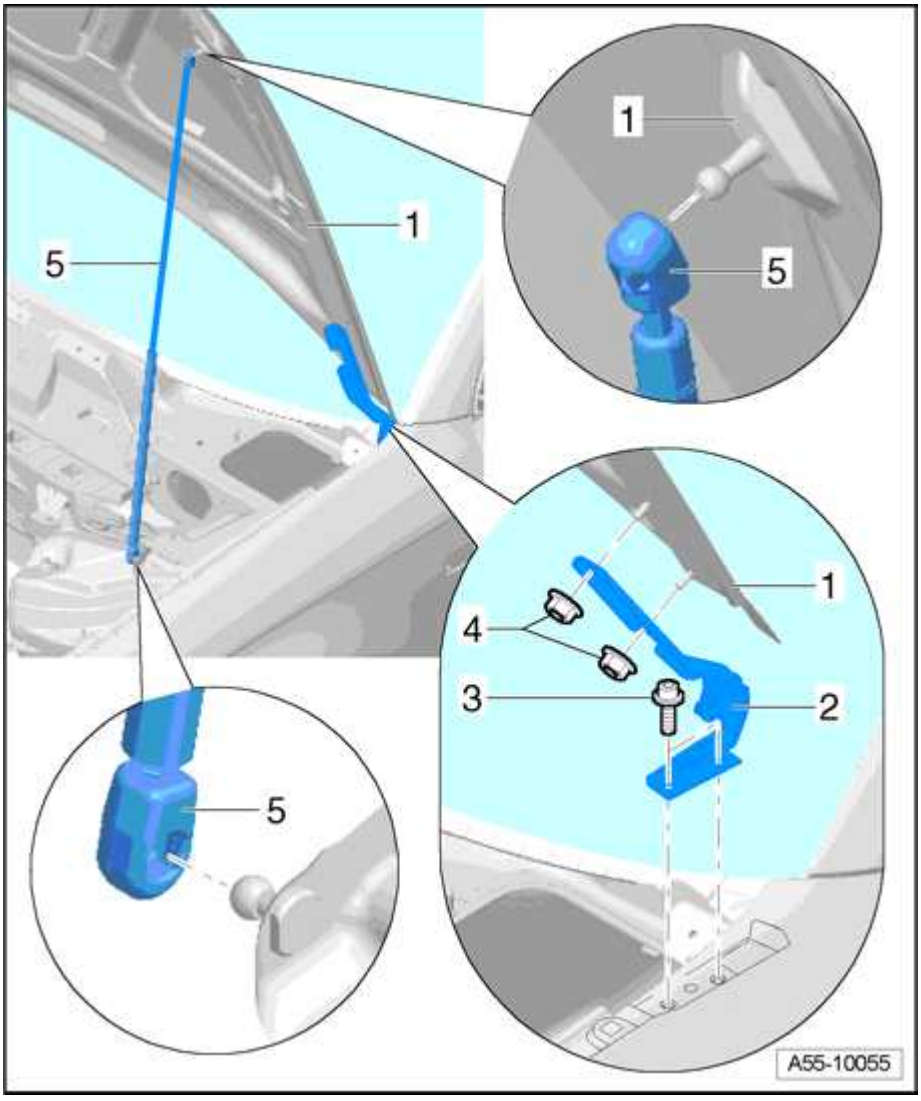


Fig. 22: Hood Remove/Install/Adjusting Components (From Model Year 2006)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Hood

- **Removing:**
- Disconnect line to windshield washer system and unclip line.
- Second person is required to support and lift hood.
- Remove gas-filled strut - **5** - from hood - **1** - **Gas-filled strut, removing and installing**.
- Remove nuts - **4** -.
- Remove hood.
- **Installing:**
- Install in reverse order of removal.

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- Adjusting:
- Align hood - **1** - between fenders.
- Adjust height of hood at hood lock **Removing and installing lower part of hood lock**.

2 - Hood hinge

- Hood - **1** - must be removed or propped up securely.
- To remove, remove bolts - **3** - and nuts - **4** -.

3 - Screw

- 21 Nm

4 - Nut

- 21 Nm

5 - Gas strut

- Tube of gas-filled strut must be installed on body side

Gas-filled strut, removing and installing

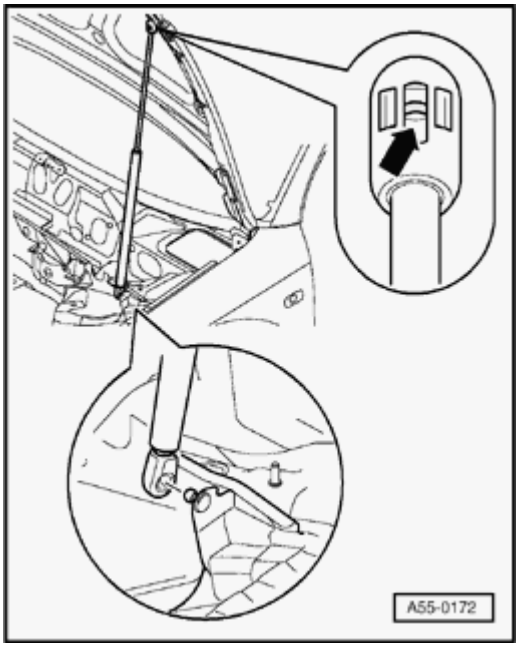


Fig. 23: Gas-Filled Strut, Removing/Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Support hood or secure it from falling down.
- Gently lift retaining springs at both ends of gas-filled strut using a screwdriver and unclip gas-filled strut.

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- To install, press gas-filled strut onto ball stud and engage.
- Install with tube end of strut at body.

Removing and installing lower part of hood lock

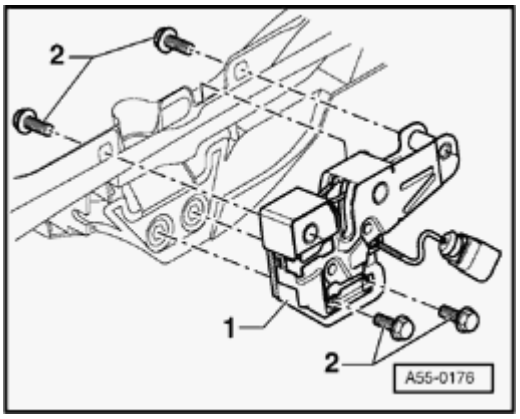
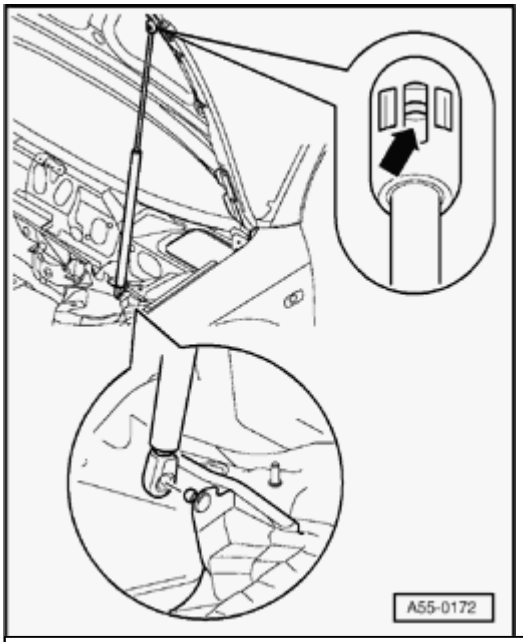


Fig. 24: Removing/Installing Lower Part Of Hood Lock
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Disengage hood release --> **Hood cable, removing and installing**.
- Remove bolts - **2** - (4x).
- Remove lower part of lock - **1** -.
- To adjust hood, move lower section of lock up or down as required.

2 - Screw (14 Nm)

Gas-filled strut, removing and installing



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Fig. 25: Gas-Filled Strut, Removing/Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Support hood or secure it from falling down.
- Gently lift retaining springs - **arrow** - at both ends of gas-filled strut using a screwdriver and unclip gas-filled strut.
- To install, press gas-filled strut onto ball stud and engage.
- Install with tube end of strut at body.

Gas-filled strut, venting

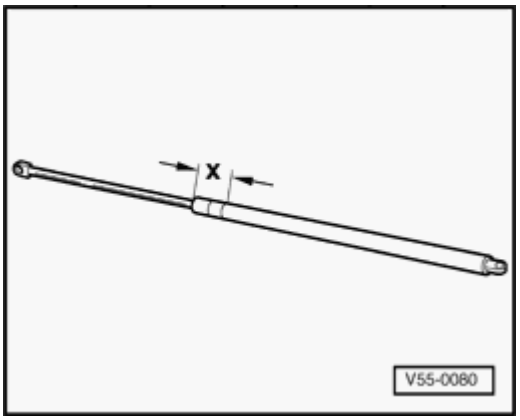


Fig. 26: Gas-Filled Strut, Venting
Courtesy of VOLKSWAGEN UNITED STATES, INC.

CAUTION: Clamp only within this area, otherwise accident could occur!

- Clamp gas-filled strut in vice area - **x** - = 50 mm (2 in.).
- Cover area of sawn portion with a rag to absorb oil spraying out.

CAUTION: Always wear eye protection when performing this procedure.

- Cut through cylinder of gas strut within first third of cylinder s overall length using piston rod end of cylinder as reference point.

Radiator grille, removing

Up to model year 2005

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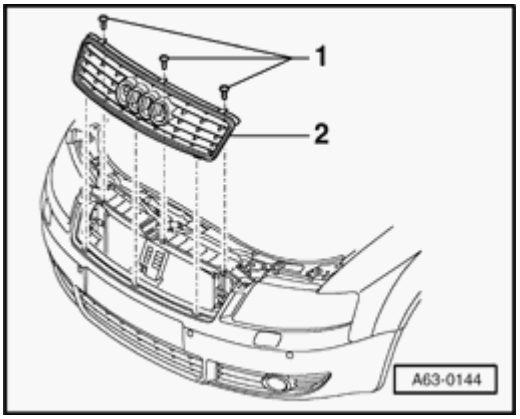


Fig. 27: Radiator Grille, Removing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts - **1** -.
- Move decorative grille - **2** - forward slightly and pull up out of bumper cover.

Catch hook, removing and installing

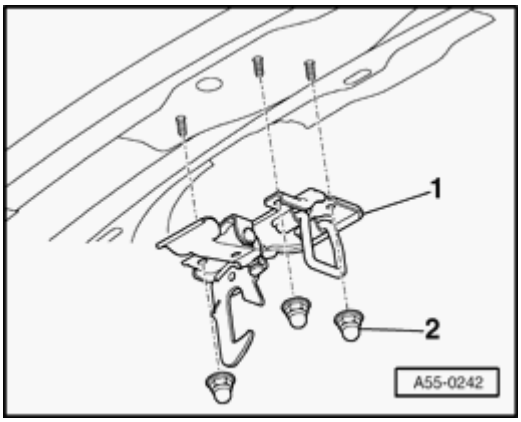


Fig. 28: Catch Hook, Removing/Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- To remove, remove nuts - **2** - and remove catch hook - **1** -.

2 - Nut (11 Nm)

Lower portion of hood lock, removing and installing

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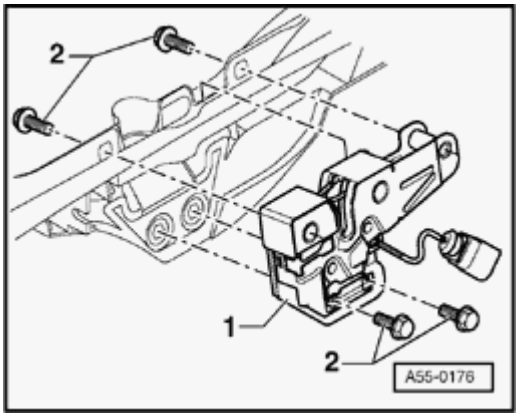


Fig. 29: Lower Portion Of Hood Lock, Removing/Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Disengage hood release --> **Hood cable, removing and installing**.
- Remove bolts - **2** - (4x).
- Remove lower part of lock - **1** -.
- To adjust hood, move lower section of lock up or down as required.

2 - Screw (14 Nm)

Front hood seal (up to model year 2005) - assembly overview

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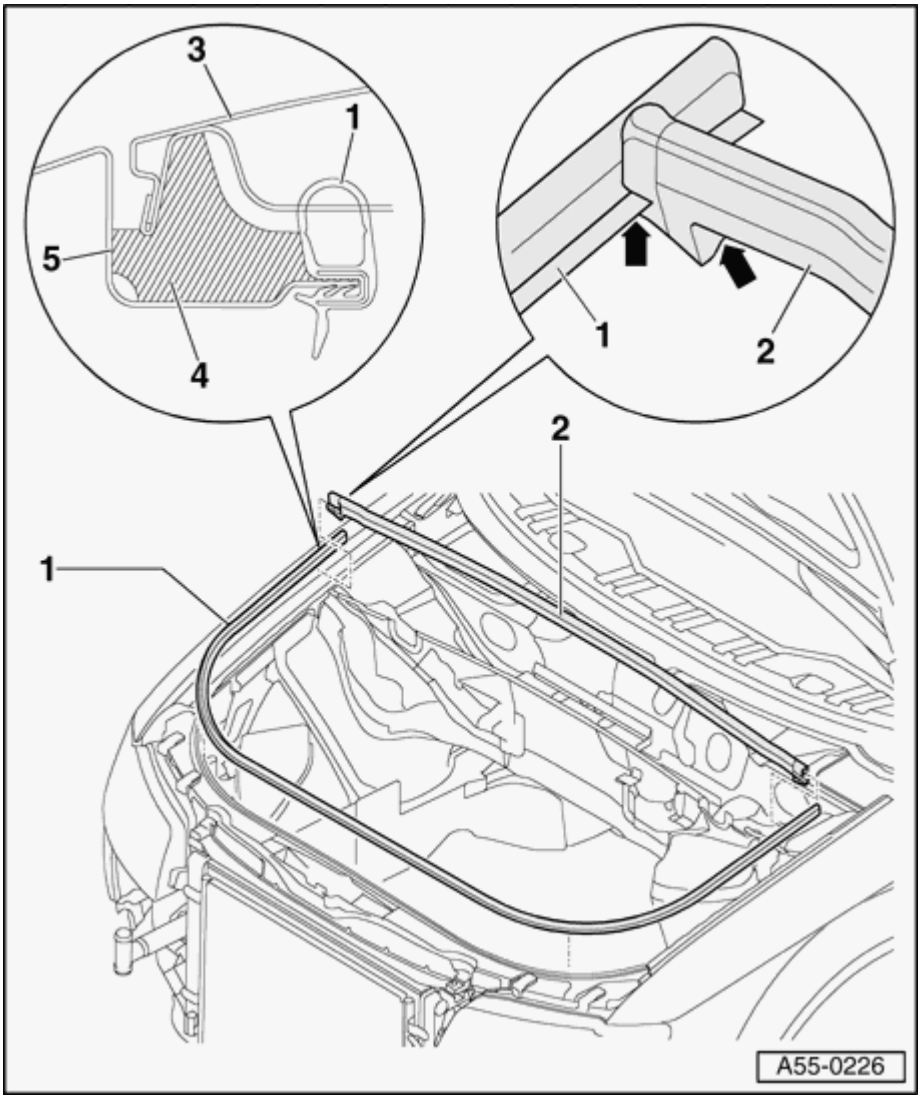


Fig. 30: Front Hood Seal (Up To Model Year 2005) - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Lock carrier seal

- Position seal at center on lock carrier (note center marking) and slide onto flange at lock carrier and fender at side.

2 - Plenum chamber seal

- Bring molded part - **arrows** - into contact and press seal onto flange from above, working from outside toward inside.

3 - Hood

4 - Sealing profile

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- Self-adhesive.
- Before installing, adhesion surface must be free of dust and grease.

5 - Fender

Front hood seal (from model year 2006) - assembly overview

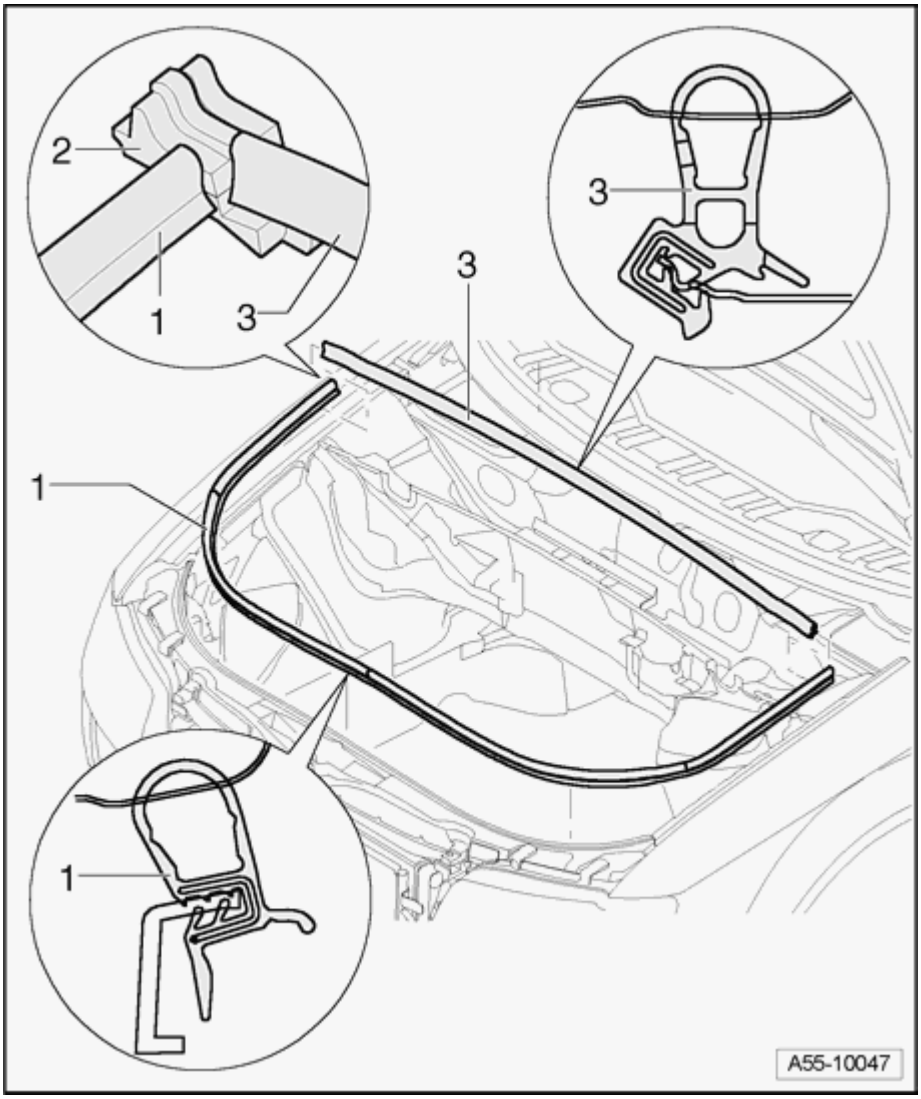


Fig. 31: Front Hood Seal (From Model Year 2006) - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Gasket for lock carrier

- Apply gasket at left and right on foam piece.
- When doing this, make sure it is applied without gaps.
- Compress excess length of gasket along lock carrier.

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2 - Left sealing profile

- Self-adhering, adhesion surfaces must be free of dust and grease.

3 - Gasket for plenum chamber

- Apply gasket at left and right on foam piece.
- When doing this, make sure it is applied without gaps.
- Compress excess length of gasket along front panel of plenum chamber.

Front hood trim, removing

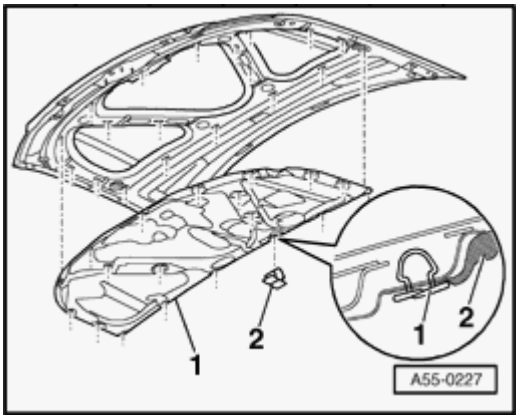


Fig. 32: Front Hood Trim, Removing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Unclip clips - **2** -.
- Remove cover - **1** -.

Hood cable, removing and installing

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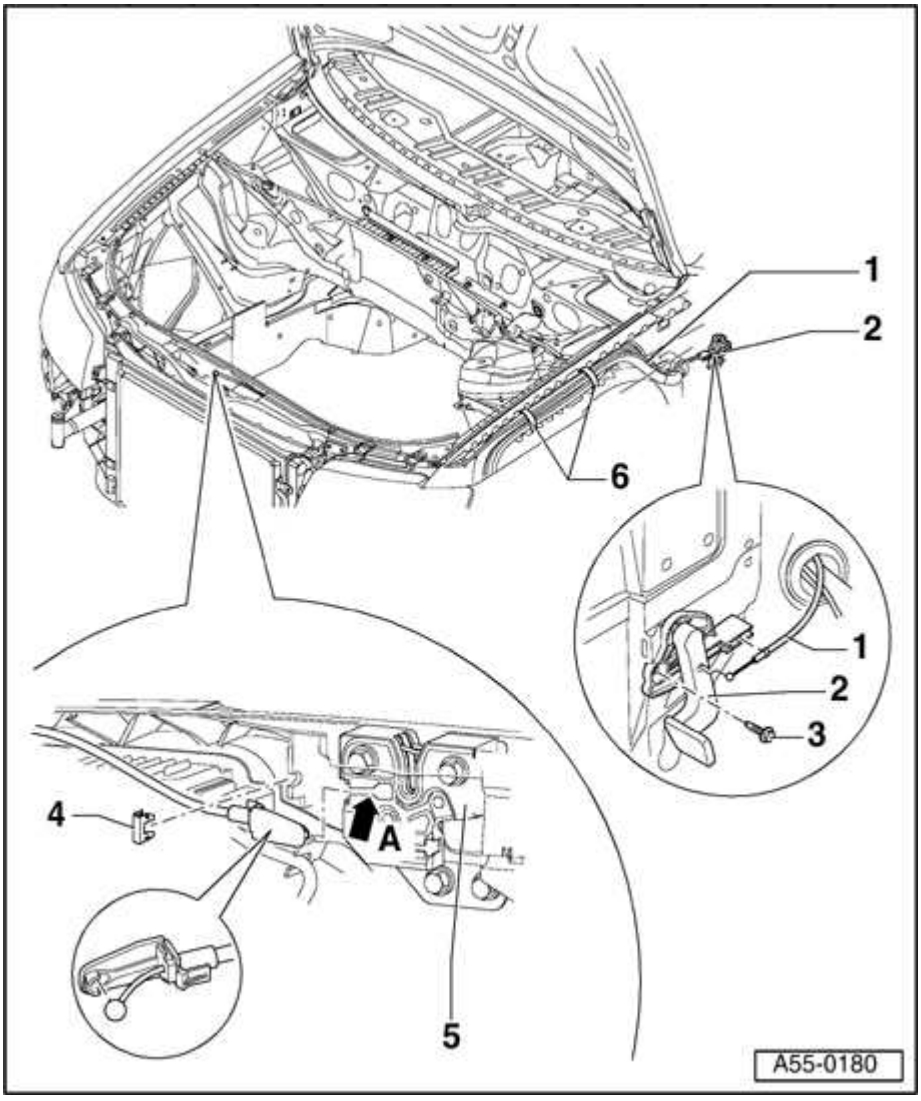


Fig. 33: Hood Cable Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Hood cable

- **Removing:**

  - Remove front wheelhousing liner --> **Front wheel housing liner, removing and installing**.
  - Remove storage compartment on drivers side (vehicles with knee bolster or Vehicles without knee bolster): -->
    - **68 - INTERIOR EQUIPMENT**
    - **68 - INTERIOR EQUIPMENT** for BODY INTERIOR - CABRIOLET

    .
  - Remove bolt.
  - Remove retaining clip.

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- Unclip cable for lower part of hood lock and disengage attachment lug - **arrow A** -.
- Remove cable from retaining clips opened earlier and pull into wheelhousing toward lock carrier.

- Install in reverse sequence.
- Bring ball on cable for lower part of hood lock into installation position.

2 - Operating lever

3 - Screw

- 2.4 Nm

4 - Retaining clamp

5 - Lower part of hood lock

- Removing and installing --> **Lower portion of hood lock, removing and installing**.
- Can be used to adjust height of hood.

6 - Retaining clip

CONVERTIBLE TOP COMPARTMENT COVER

Convertible top compartment cover, removing and installing

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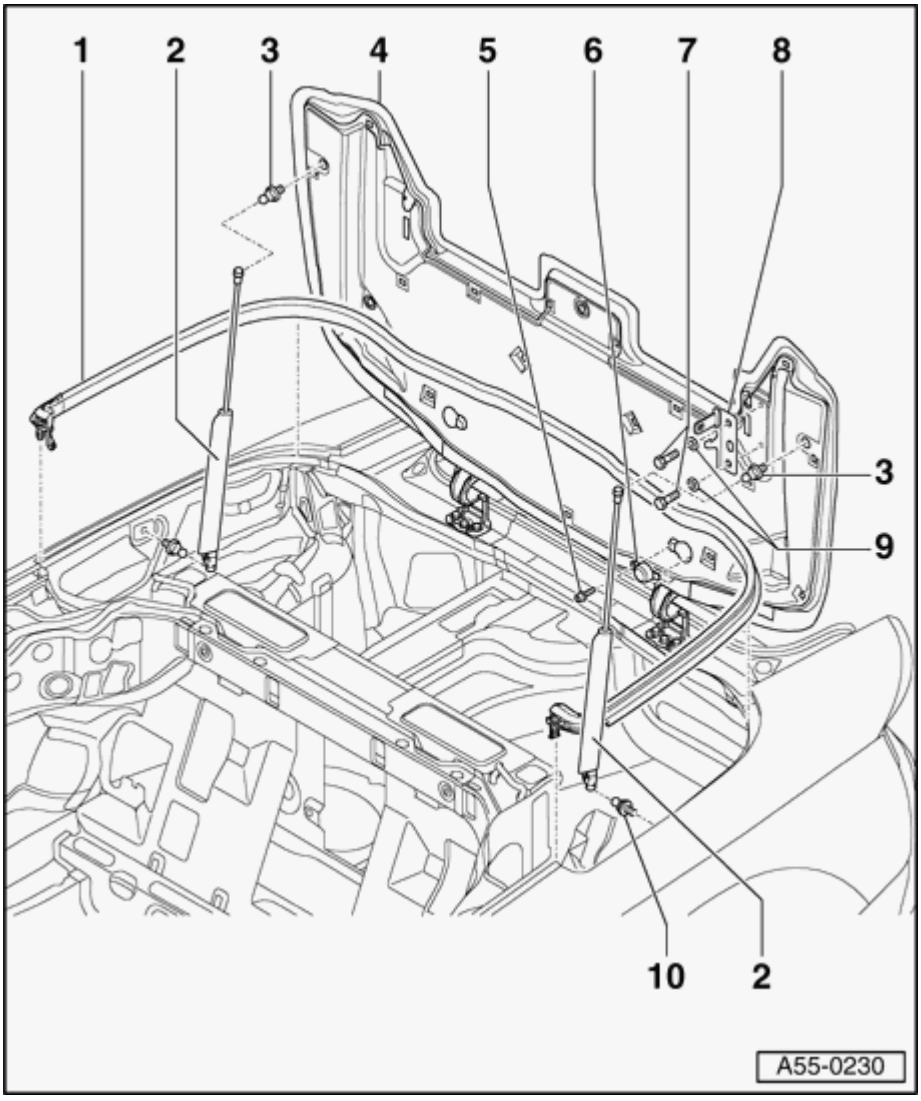


Fig. 34: Convertible Top Compartment Cover Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Convertible top compartment cover seal

- Begin installation at molded parts.
- Install molded part along flange toward outside, not from above.
- Install seal on both sides from inside toward outside.

2 - Hydraulic cylinder

3 - Ball head pin

- 21 Nm

4 - Convertible top compartment cover

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- **Removing:**

  - Disengage push rod from hydraulic cylinders at ball stud.
  - Remove bolts on cover side of hinge **Cover side hinge, removing**.
  - Remove convertible top compartment cover.

5 - Screw

- 8 Nm

6 - Hold-down fastener

- Remove convertible top compartment cover insulation.
- Pull hold-down fastener out sideways and remove.

7 - Screw

- 21 Nm

8 - Tension plate

- Striker pin is aligned to convertible top compartment cover latch.
- It must align with latch housing on inside.
- When closed, striker pin must have enough clearance in latch cover opening.

9 - Window

10 - Ball head pin

- 21 Nm

Cover side hinge, removing

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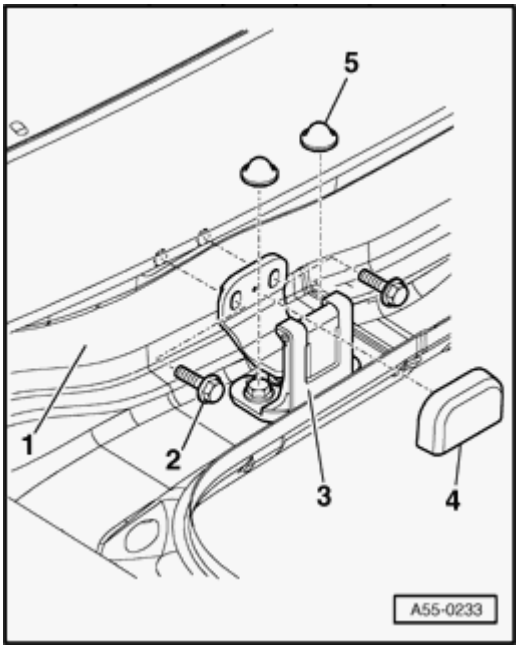


Fig. 35: Cover Side Hinge, Removing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts - **2** - from convertible top compartment cover - **1** -.

3 - Hinge

4 - Cover cap

5 - Cover caps for bolts

Hinge, removing

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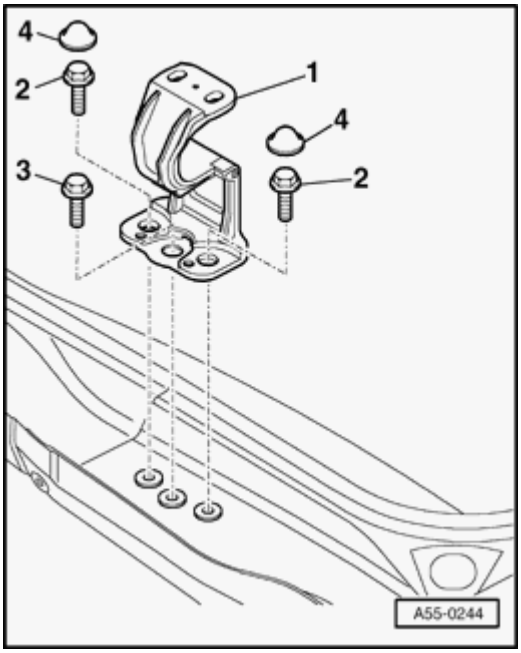


Fig. 36: Removing/Installing Bolts & Hinge
Courtesy of VOLKSWAGEN UNITED STATES, INC.

NOTE:

- **Only remove both outer bolts - 2 - to remove convertible top compartment cover or hinges.**
- **Hinge base plate must not be removed.**

- Remove lid side hinge - **1** -.
- Remove cover caps from bolts.
- Remove bolts - **2** - and remove hinge.

2 - Screw (21 Nm)

Convertible top compartment cover insulation, removing and installing

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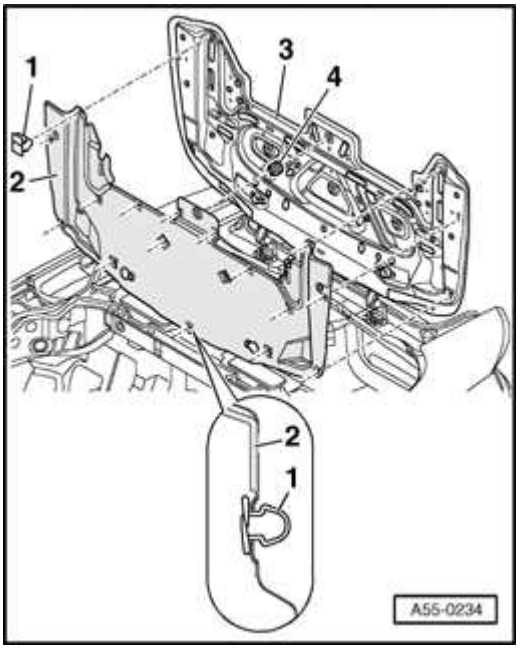


Fig. 37: Convertible Top Compartment Cover Insulation Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove clips - **1** - (Qty. 17) and insulation - **2** - from convertible top compartment cover - **3** -.
- Install stop buffer - **4** - with 2 mm gap to system.

Tension plate, removing

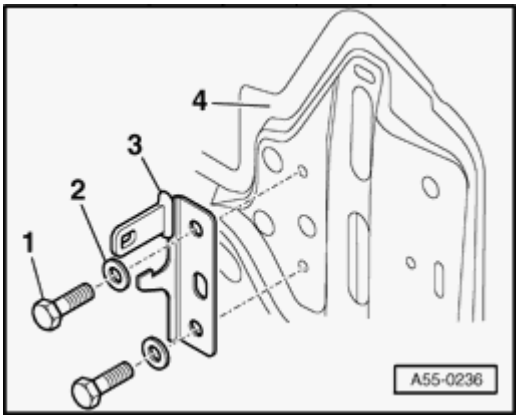


Fig. 38: Tension Plate, Removing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Convertible top compartment cover insulation removed.

- Remove bolts - **1** - and remove tension plate - **3** - from convertible top compartment cover.

2 - Window

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Hold-down fastener, removing and installing

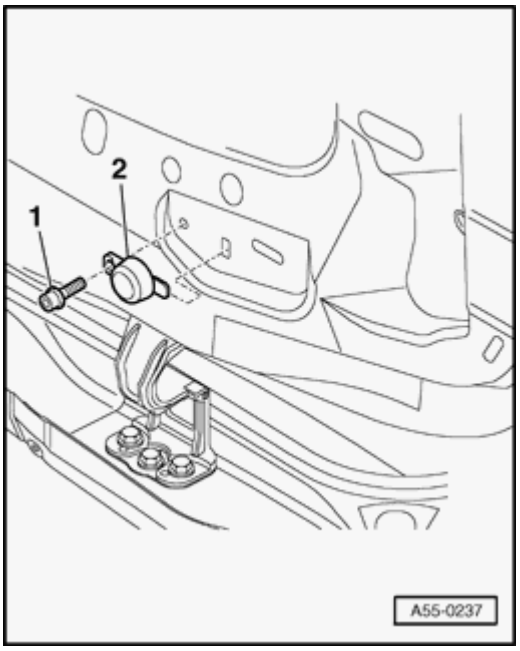


Fig. 39: Hold-Down Fastener Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Convertible top compartment cover insulation removed.

  - Remove bolt - **1** - , slide hold-down fastener sideways out of convertible top compartment cover and remove.

1 - Screw (8 Nm)

Convertible top compartment cover seal

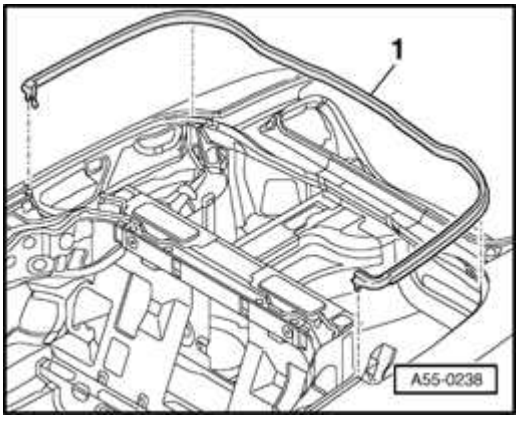


Fig. 40: Convertible Top Compartment Cover Seal
Courtesy of VOLKSWAGEN UNITED STATES, INC.

  - Begin installation at outer molded parts.

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- Slide molded parts on not from above, but rather along flange toward outside.
- Press sealing profile from above onto body flange.
- Center any excess length to middle of vehicle.

Cover for convertible top compartment cover, removing and installing

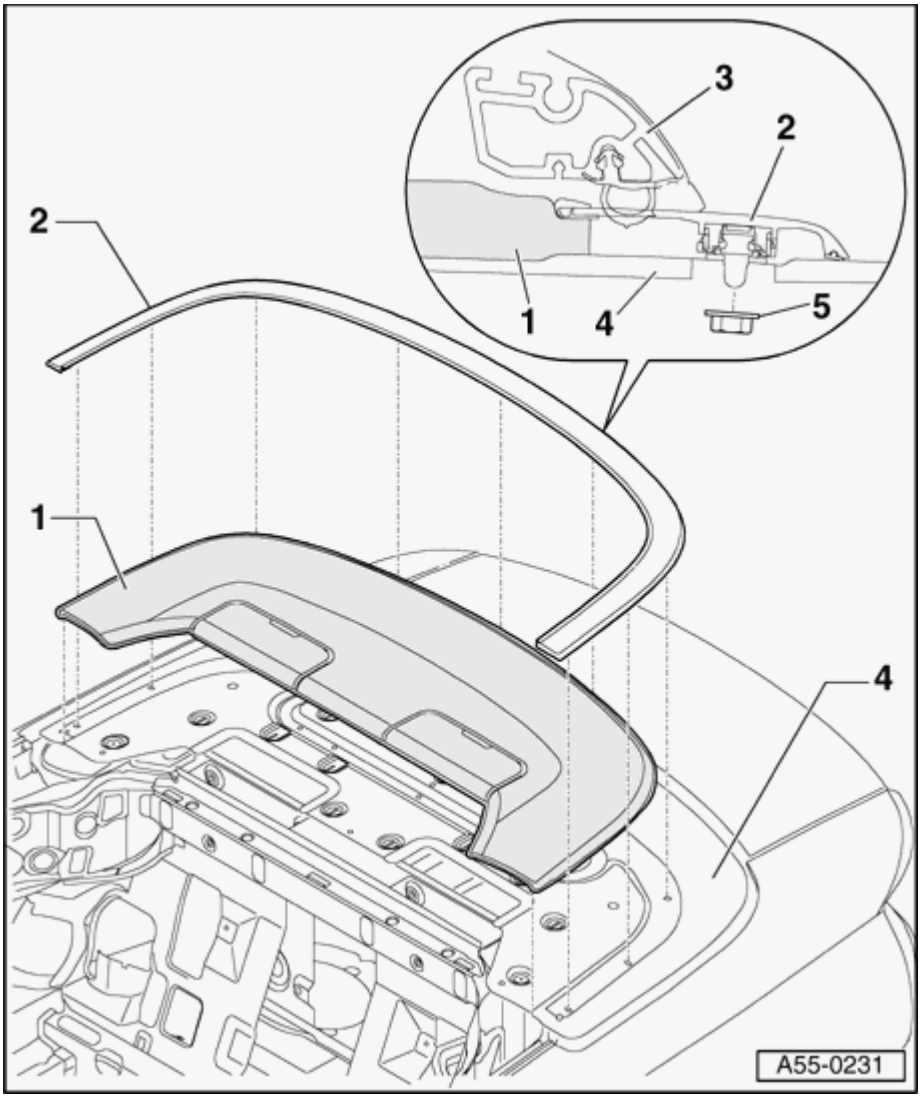


Fig. 41: Cover For Convertible Top Compartment Cover Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Cover for convertible top compartment cover

- **Removing:**

- Remove convertible top compartment cover insulation **Convertible top compartment cover insulation, removing and installing**.

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- Remove trim.
- Remove sheet metal screws (Qty. 2) from inner side for securing front side of insulation and remove from convertible top compartment cover.

2 - Trim molding

- Remove convertible top compartment cover insulation **Convertible top compartment cover insulation, removing and installing**.
- When installing, maintain tightening torque of 6.5 Nm, otherwise impressions will be visible on the trim.

3 - Convertible top

4 - Convertible top compartment cover

5 - Screw

- 6.5 Nm
- Maintain torque, otherwise impressions will be visible on trim.

REAR LID

Rear lid, removing and installing and adjusting

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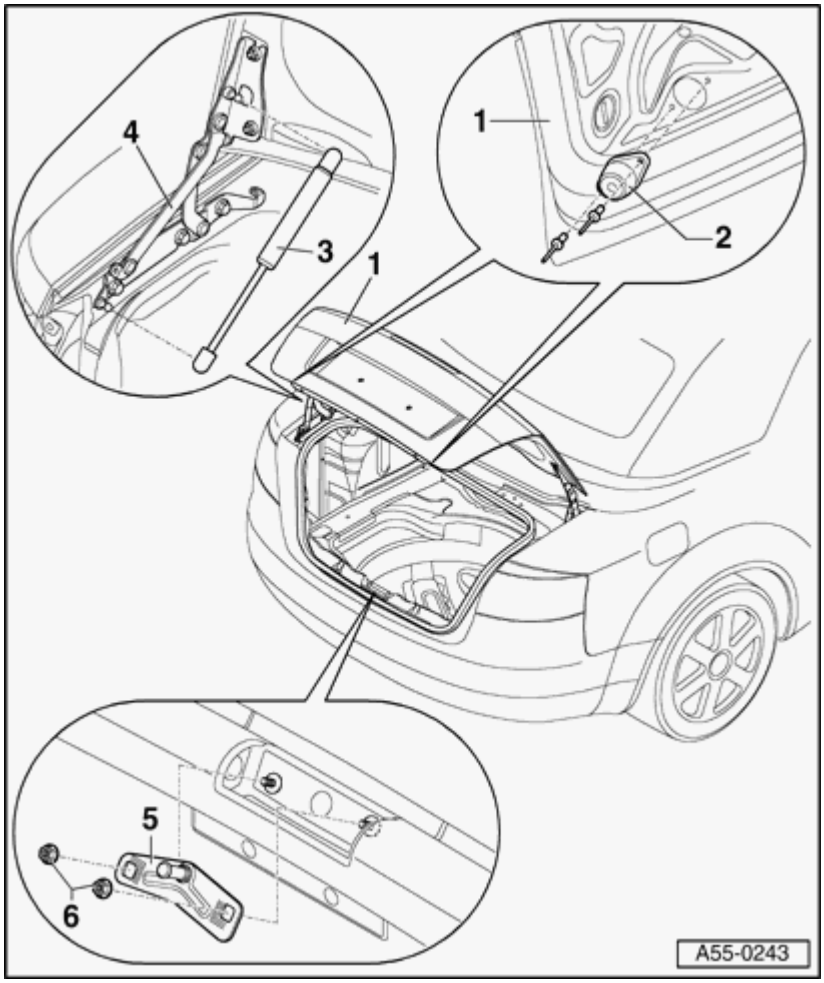


Fig. 42: Rear Lid Remove/Install/Adjusting Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Rear lid

- **Removing:**

NOTE:

- **A 2nd technician is needed to support and raise the rear lid.**

  - Remove rear lid cover.
  - Disconnect electrical connectors and remove from lid.
  - Remove the nuts that connect both lid hinges to rear lid --> **Rear lid hinge, removing and installing**.

- Install in reverse sequence.
- Panel gap dimensions **Panel gap dimensions**.

2 - Stop buffer

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- Adjusting --> **Stop buffer, adjusting**.

3 - Gas strut

- Removing and installing --> **Gas-filled strut, removing and installing**.

4 - Rear lid hinge

- Removing and installing --> **Rear lid hinge, removing and installing**.

5 - Striker

- Removing and installing **Striker, removing and installing**.
- Adjusting **Rear lid, adjusting**.

6 - Nut

- 8 Nm

Striker, removing and installing

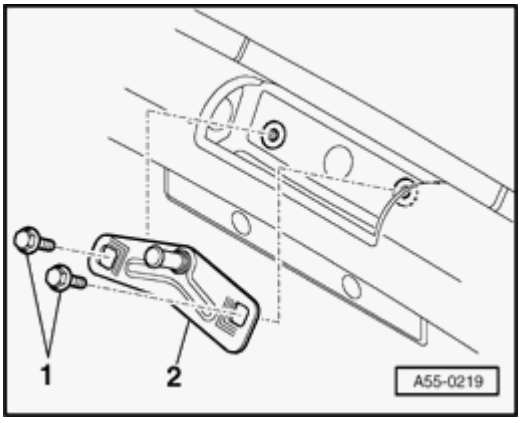


Fig. 43: Striker Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove trim for rear panel -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .
- Remove bolts - **1** -.

1 - Screw (21 Nm)

Rear lid, adjusting

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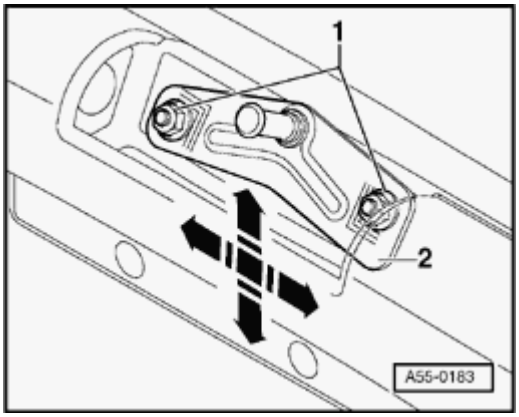


Fig. 44: Rear Lid Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove trim for rear panel -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

.

NOTE:

- **The gas-filled struts must be attached before installing a new rear lid.**

- Loosen bolts - **1** - , it must be possible to slide striker - **2** -.
- Carefully close rear lid until lid is flush with side panels.
- Carefully open lid and tighten nuts - **1** -.

2 - Nut (8 Nm)

Panel gap dimensions

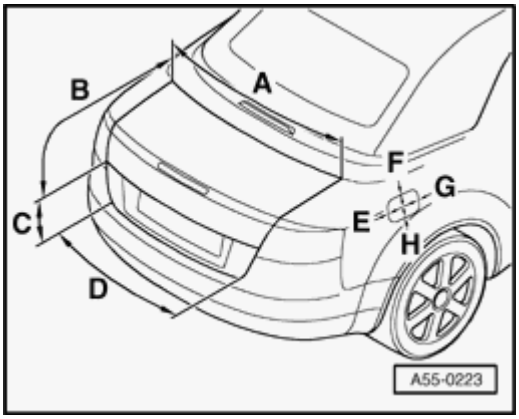


Fig. 45: Panel Gap Dimensions
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Dimension - **A** - = 4.5 mm ± 0.5 mm.

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- Dimension - **B** - = 3.5 mm ± 0.5 mm.
- Dimension - **C** - = 3.5 mm ± 0.5 mm.
- Dimension - **D** - = 4.5 mm ± 0.5 mm.

- Dimension - **E** - = 2.5 mm ± 0.2 mm.
- Dimension - **F** - = 2.5 mm ± 0.2 mm.
- Dimension - **G** - = 3.3 mm ± 0.2 mm.
- Dimension - **H** - = 3.0 mm ± 0.2 mm.

Rear lid lock and handle mechanism, removing and installing

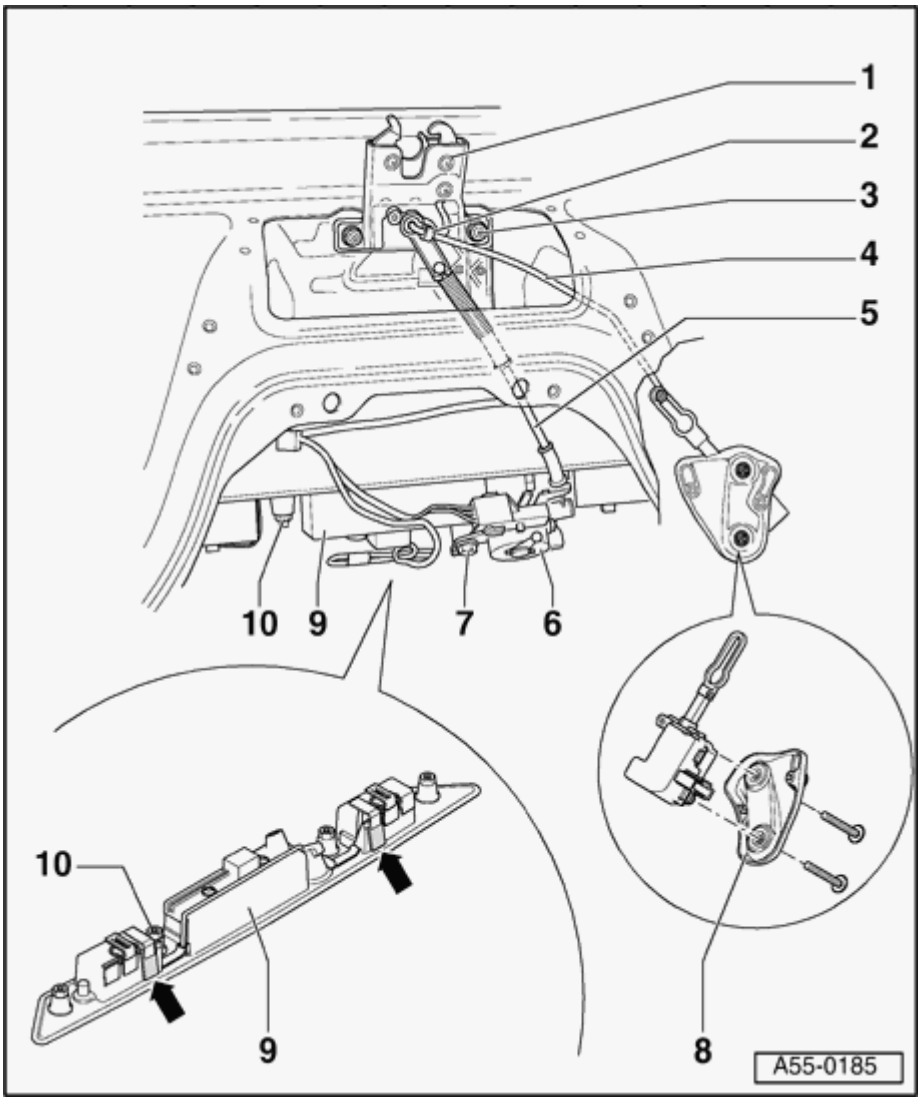


Fig. 46: Rear Lid Lock And Handle Mechanism Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Rear lid lock

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- To remove, unclip operating rod from swiveling bush and disengage.

2 - Swiveling bush

- After installing rear lid lock, engage operating rod and secure.

3 - Nut

- 8 Nm

4 - Operating rod

5 - Release

6 - Lock cylinder

- **Removing:**

  - Disconnect electrical connectors.
  - Disengage release from lock cylinder.
  - Remove bolt.
  - Twist lock cylinder 90°.
  - Remove lock cylinder from handle mechanism.

7 - Screw

- 8 Nm

8 - Motor

- Country versions

9 - Handle

- **Removing:**

  - Remove rear lid trim.
  - Remove lock cylinder.
  - Remove bolts.
  - Press in catches - **arrows** -.
  - Remove grip piece.

10 - Nut

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- 8 Nm

Gas-filled strut, removing and installing

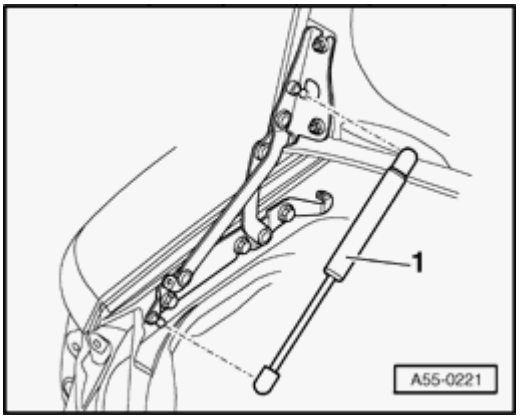


Fig. 47: Gas-Filled Strut Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Removing

NOTE:

- **When removing or installing the gas-filled strut, push back the opened rear lid only slightly so as to avoid damaging components.**

- Lift retaining springs in succession on both ends using screwdriver and remove gas-filled strut - **1** -.

Installing

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

Gas-filled strut, venting

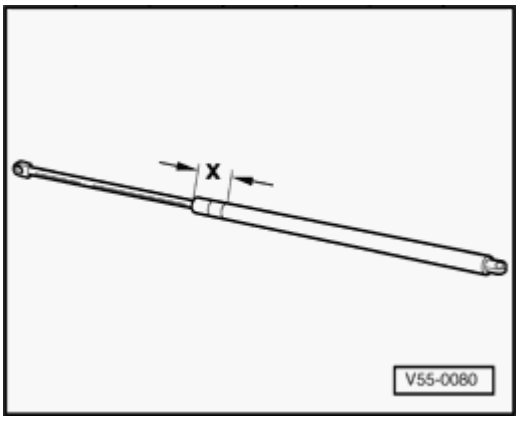


Fig. 48: Gas-Filled Strut, Venting
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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CAUTION: Clamp only within this area, otherwise accident could occur!

- Clamp gas-filled strut in vice area - **x** - = 50 mm (2 in.).
- Cover area of sawn portion with a rag to absorb oil spraying out.

CAUTION: Always wear eye protection when performing this procedure.

- Cut through cylinder of gas strut within first third of cylinders overall length using piston rod end of cylinder as reference point.

Rear lid hinge, removing and installing

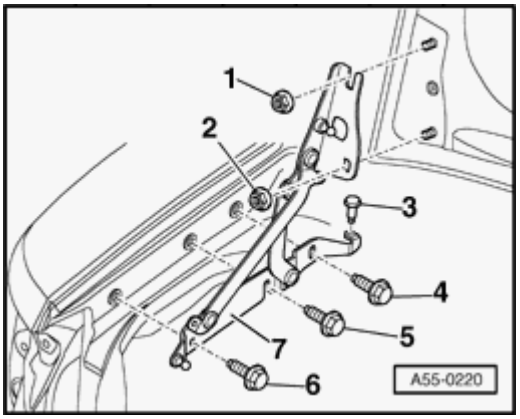


Fig. 49: Rear Lid Hinge Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

NOTE:

- **For easier adjustment of the rear lid hinges, use gradations marked on the hinges.**

- Loosen nut - **1** -.
- Unscrew nut - **2** -.
- Lift off lid from hinge.

3 - Height adjusting screw

- Remove bolts - **4** - and - **6** -.
- Only loosen center bolt - **5** -.
- Remove hinge - **7** -.

Installation is reverse of removal.

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1 - Nut (21 Nm)

2 - Nut (21 Nm)

4 - Screw (21 Nm)

5 - Screw (21 Nm)

6 - Screw (21 Nm)

Rear lid seal, installing

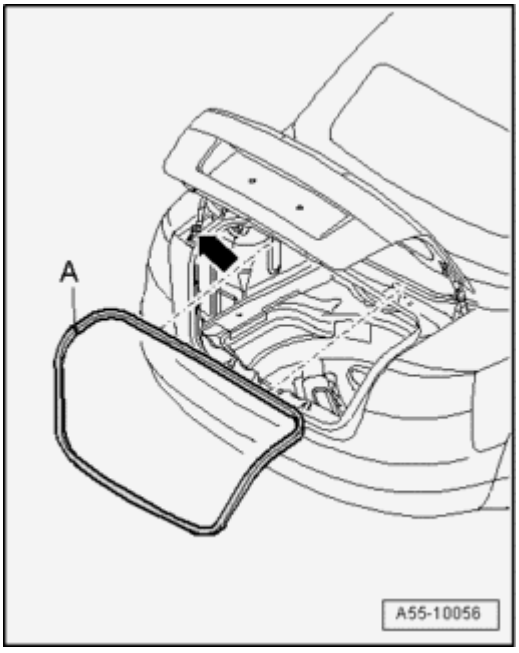


Fig. 50: Rear Lid Seal, Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Rear lid seal butt joint - **item A** - must be aligned on left hinge ball socket - **arrow** -.
- Press seal on.

Stop buffer, adjusting

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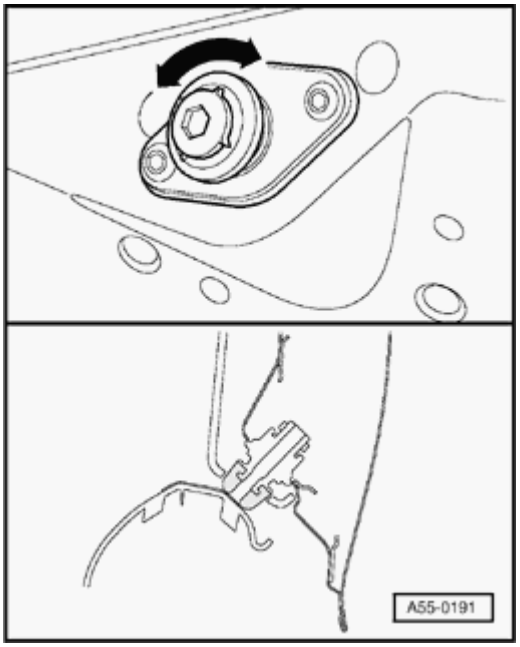


Fig. 51: Stop Buffer, Adjusting
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Open rear lid.
- Remove rubber cap.
- Screw in buffer stops until they reach stop.
- Unscrew stop again in steps.
- Press rubber cap on.

- When adjusted correctly and with lid closed, buffer stops must make contact lightly on luggage compartment edge.

FUEL FILLER FLAP

Fuel filler flap, removing and installing

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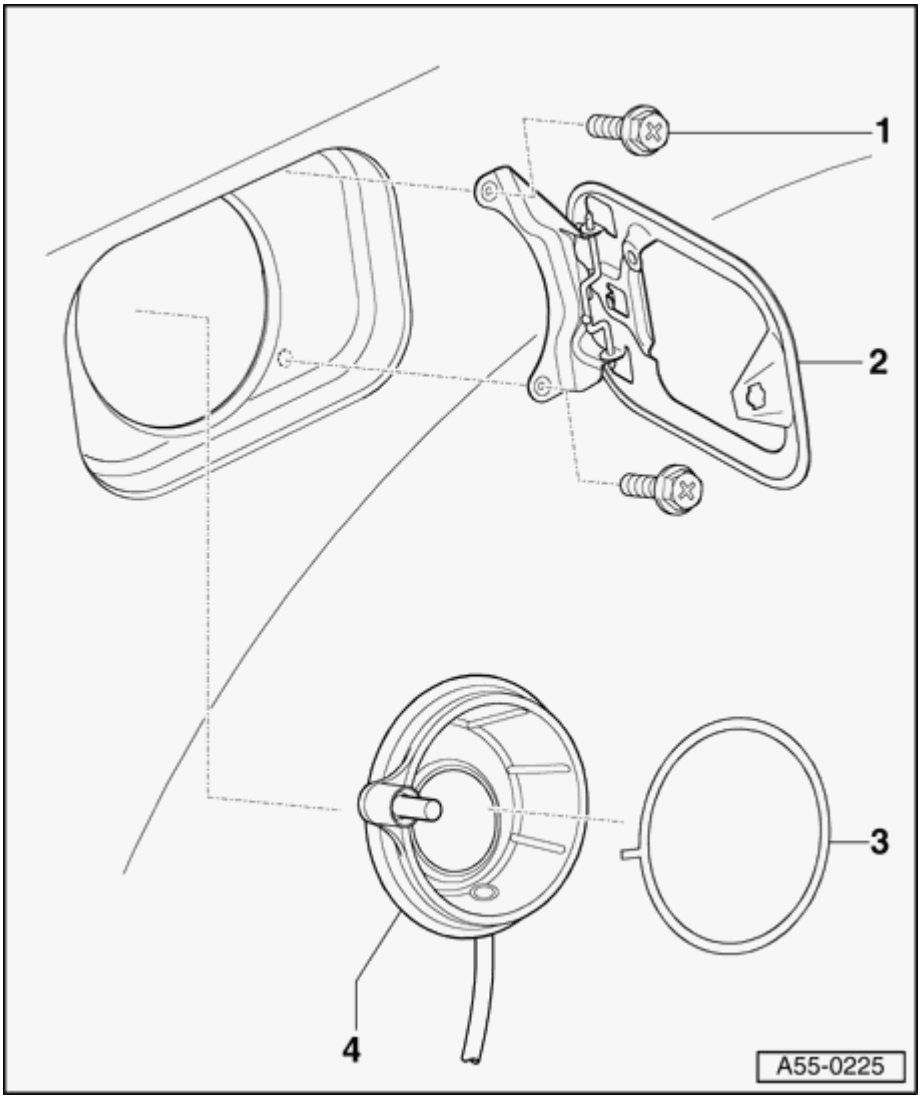


Fig. 52: Fuel Filler Flap Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Screw

- 1.5 Nm

2 - Fuel filler flap

3 - Circlip

- Remove before removing filler neck cup.

4 - Filler neck cup

- **Removing:**

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- Remove securing clip.
- Raise cup out of opening slightly.
- Remove drain hose from lower guide piece and completely remove from opening with cup.

- **Installing:**

- Coat cup with lubricant (e.g. soap solution).
- Slide drain hose into body opening.
- Press cup completely into opening.
- Insert circlip.

- Insert drain hose into lower guide piece **Insert filler neck cup drain hose into guide piece.**.

- Panel gap dimensions **Panel gap dimensions**.

Insert filler neck cup drain hose into guide piece

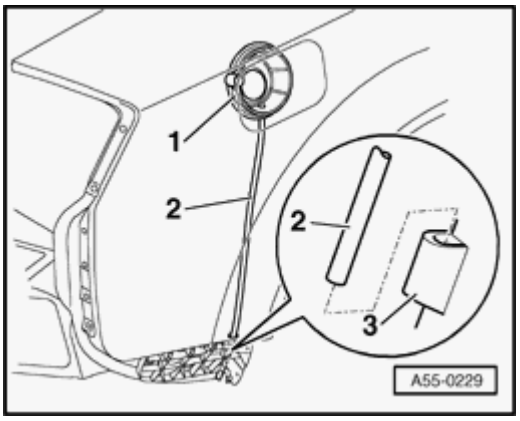


Fig. 53: Insert Filler Neck Cup Drain Hose Into Guide Piece
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove rear wheel housing liner bolts in guide piece area.
- Pull wheel housing liner back slightly and insert drain hose - **2** - for cup - **1** - in bumper guide piece eyelet - **3** -.

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55 HOOD, LIDS

HOOD

Hood, removing, installing and adjusting

Up to Vehicle Identification Number (VIN) 400 000

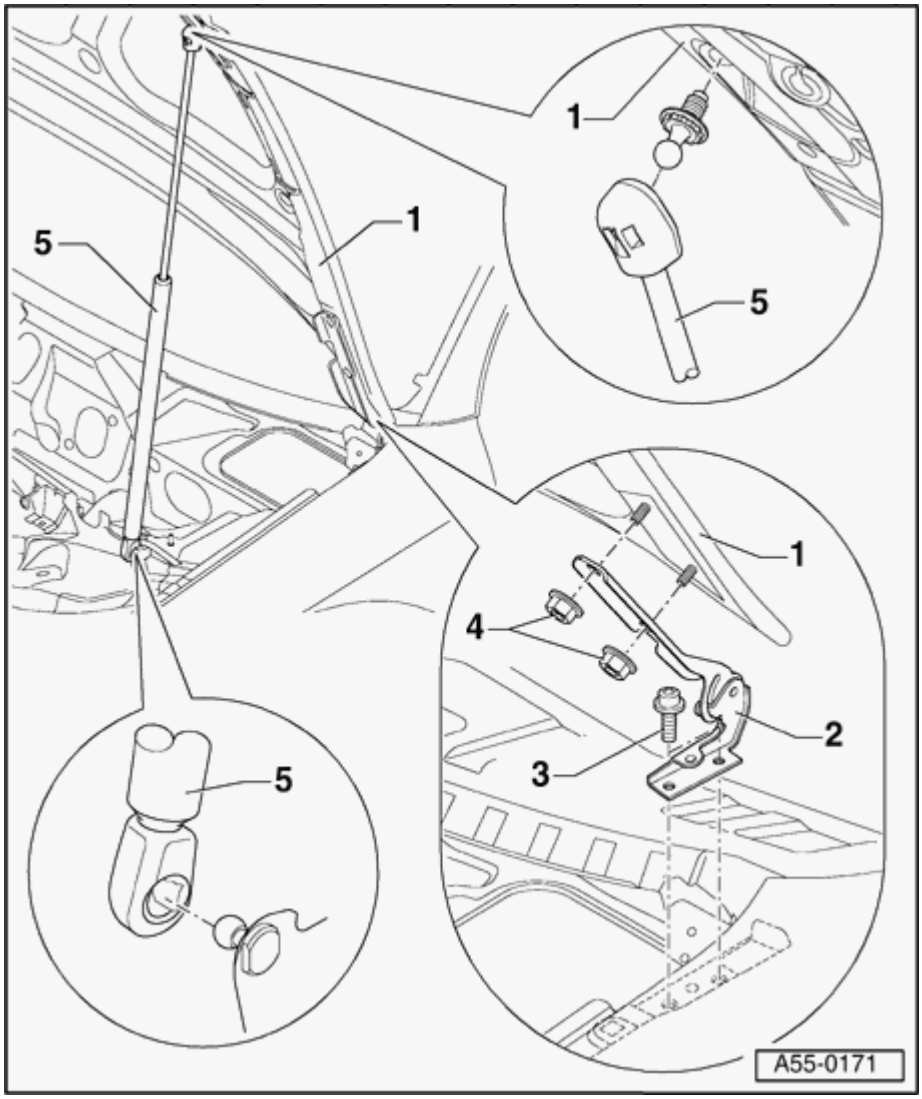


Fig. 16: Hood Remove/Install/Adjusting Components (Up To Vehicle Identification Number (VIN) 400 000)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Hood

- **Removing:**
- Disconnect line to windshield washer system and unclip line.

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- Second technician is needed to support and lift hood during removal.
- Remove gas-filled strut - **5** - from hood - **1** - **Gas-filled strut, removing and installing**.
- Remove nuts - **4** -.
- Remove hood.
- **Installing:**
- Install in reverse order of removal.
- Adjusting:
- Align hood - **1** - between fenders.
- Adjust height of hood at hood lock **Removing and installing lower part of hood lock**.
- Hood can be adjusted for height relative to fenders by adjusting buffer stops --> **Buffer stop for height adjustment**.
- Panel gap dimensions --> **Hood gap dimensions**.

2 - Hood hinge

- Hood - **1** - must be removed or propped up securely.
- To remove, remove bolts - **3** - and nuts - **4** -.

3 - Combination bolt

- 21 Nm

4 - Hex nut

- 21 Nm

5 - Gas-filled strut

- Removing and installing **Gas-filled strut, removing and installing**

As of Vehicle Identification Number (VIN) 400 001

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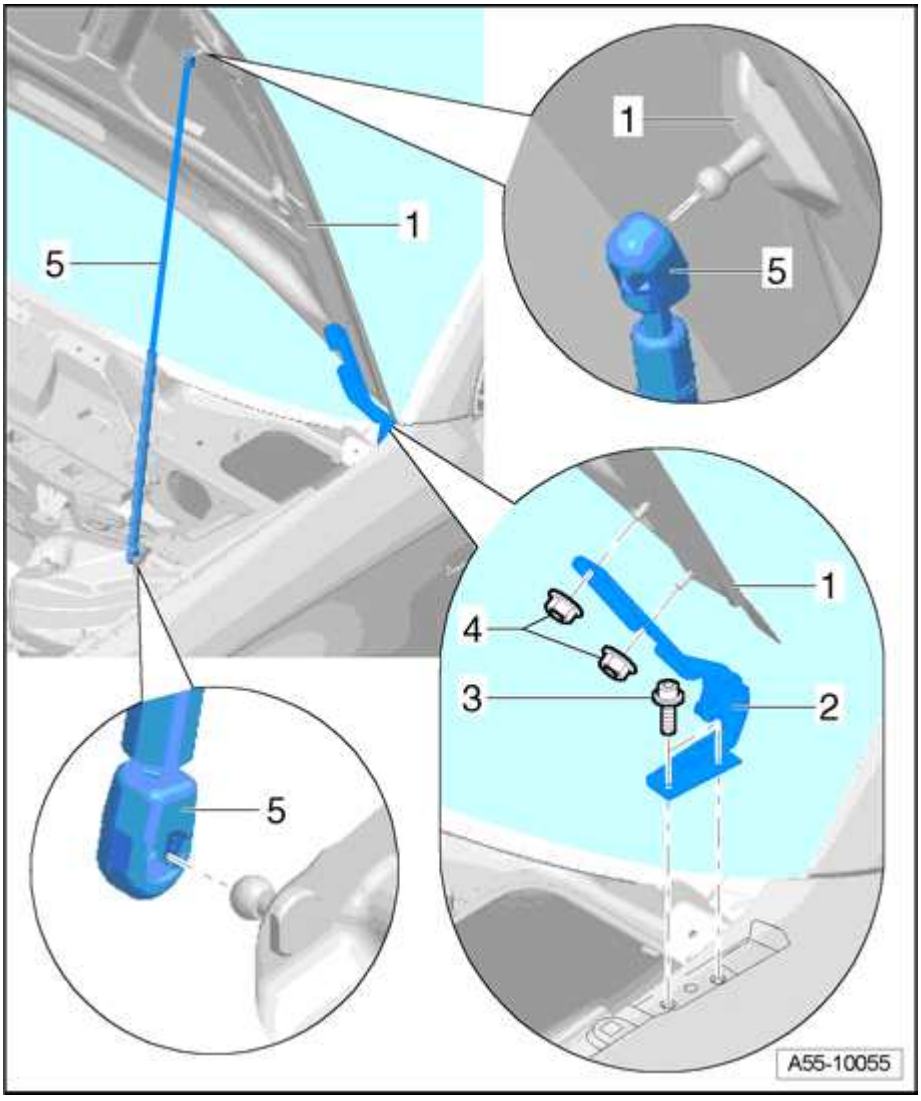


Fig. 17: Hood Remove/Install/Adjusting Components (As Of Vehicle Identification Number (VIN) 400 001)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Hood

- **Removing:**
- Disconnect line to windshield washer system and unclip line.
- Second technician is needed to support and lift hood during removal.
- Remove gas-filled strut - **5** - from hood - **1** - **Gas-filled strut, removing and installing**.
- Remove nuts - **4** -.
- Remove hood.
- **Installing:**
- Install in reverse order of removal.

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- Adjusting:
- Align hood - **1** - between fenders.
- Adjust height of hood at hood lock **Removing and installing lower part of hood lock**.

2 - Hood hinge

- Hood - **1** - must be removed or propped up securely.
- To remove, remove bolts - **3** - and nuts - **4** -.

3 - Combination bolt

- 21 Nm

4 -

- 21 Nm

5 - Gas-filled strut

- Tube of gas-filled strut must be installed on body side

Gas-filled strut, removing and installing

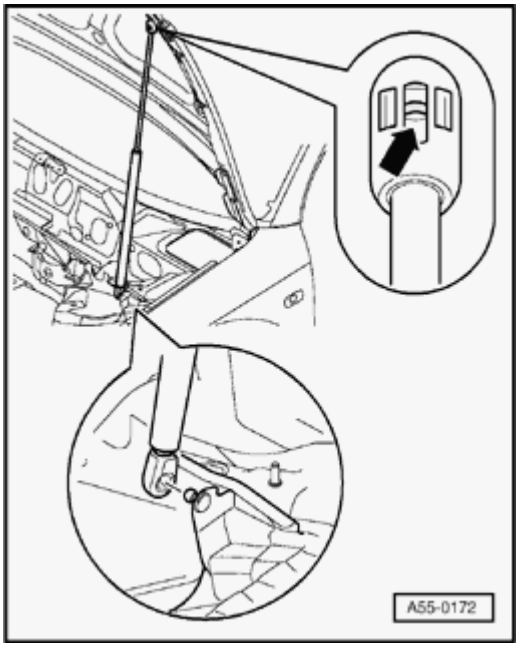


Fig. 18: Gas-Filled Strut, Removing And Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Support hood or secure it from falling down.
- Gently lift retaining springs at both ends of gas-filled strut using a screwdriver and unclip gas-filled strut.

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- To install, press gas-filled strut onto ball stud and engage.
- Install with tube end of strut at body.

Releasing gas from gas-filled strut

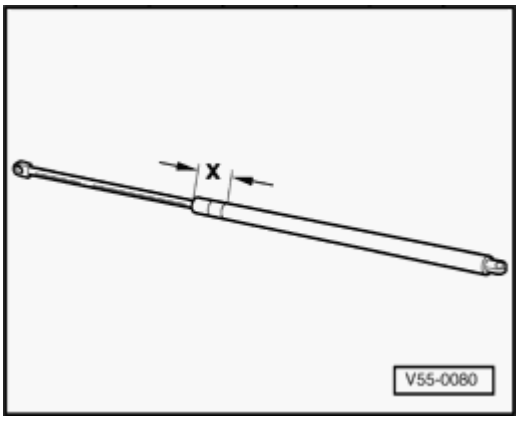


Fig. 19: Identifying Gas-filled Strut Area To be Clamped in Vice
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Clamp gas-filled strut in vice area x. Dimension of - **x** - = 50 mm (2 in.).

CAUTION: Clamping must only be done in this area, otherwise there is a risk of an accident.

Always wear eye protection when performing this procedure.

- Cover area of sawn portion with a rag to absorb oil spraying out.
- Using saw, cut into cylindrical part of strut at point within first third of cylinders length (measured from cover edge at piston rod end of cylinder).

Buffer stop for height adjustment

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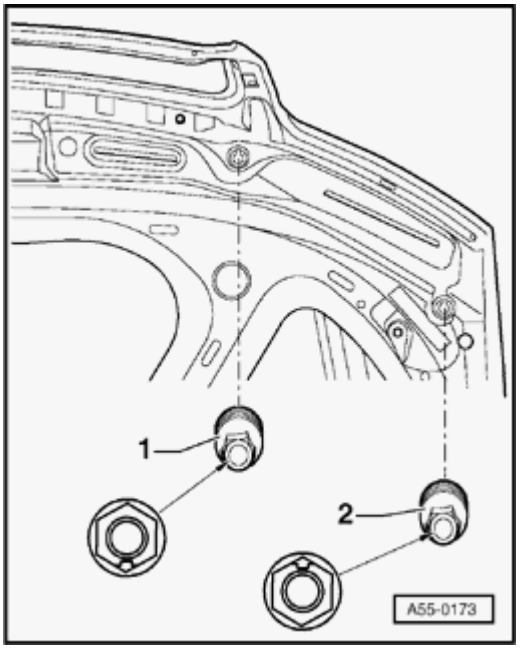


Fig. 20: Buffer Stop For Height Adjustment
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Buffer stops - **1** - and - **2** - must make contact lightly against lock carrier when hood is closed.

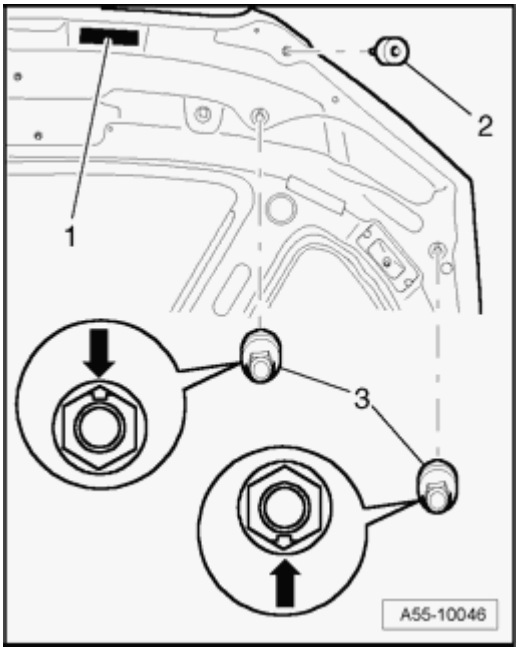


Fig. 21: Buffer Stop For Height Adjustment (As Of Vehicle Identification Number (VIN) 400 001)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

As of Vehicle Identification Number (VIN) 400 001

- Impact guard - **1** - for hood inserted

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- During installation, screw buffer - **3** - for height adjustment into hood until it stops.
- For height adjustment, screw out far enough until contour aligns with fender.
- Buffer must make contact on lock carrier after adjustment.

- Buffers - **2** - for strike guard are inserted.

NOTE:

- **The buffer stops can be used for adjusting the height of the hood.**

Radiator grill, removing and installing

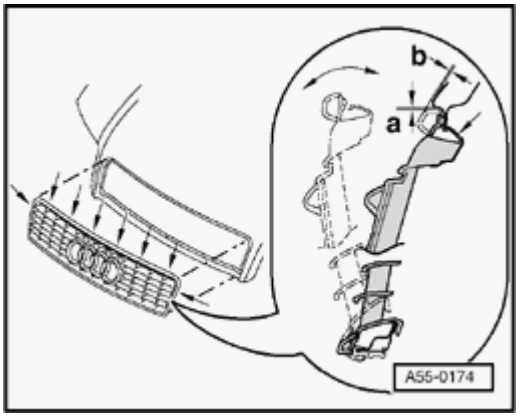


Fig. 22: Radiator Grill, Removing And Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- To remove, disengage locking mechanisms - **arrows** -.
- Swivel out radiator grille at top, then pull off downward.

NOTE:

- **To ease installation, coat PU seal with lubricant.**

- To install, insert centered at bottom (note middle centering) and swivel in - **direction of arrow** -.
- Dimension - **a** - = 1.5 ± 0.5 mm
- Dimension - **b** - =0.7 ± 0.5 mm
- When installing, make sure radiator grille engage completely (audibly).

Removing and installing catch hook

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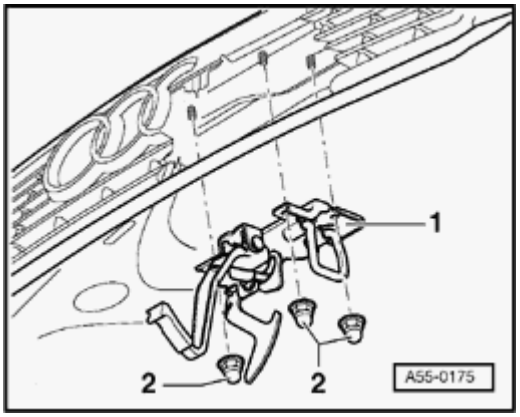


Fig. 23: Removing And Installing Catch Hook (Up To Vehicle Identification Number (VIN) 400 000)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Up to Vehicle Identification Number (VIN) 400 000

- To remove, unscrew cap nuts - **2** - and remove catch hook - **1** -.
- When installing, tighten cap nuts to 11 Nm.

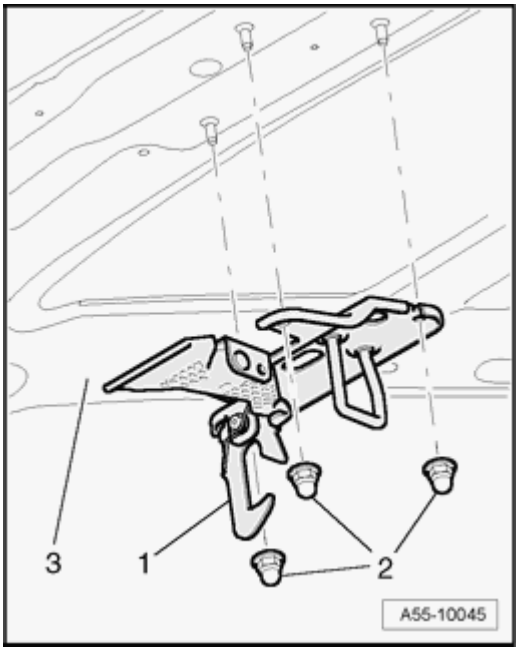


Fig. 24: Removing And Installing Catch Hook (As Of Vehicle Identification Number (VIN) 400 001)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

As of Vehicle Identification Number (VIN) 400 001

- To remove, unscrew cap nuts - **2** - and remove catch hook - **1** - from hood - **3** -.
- When installing, tighten cap nuts to 11 Nm.

Removing and installing lower part of hood lock

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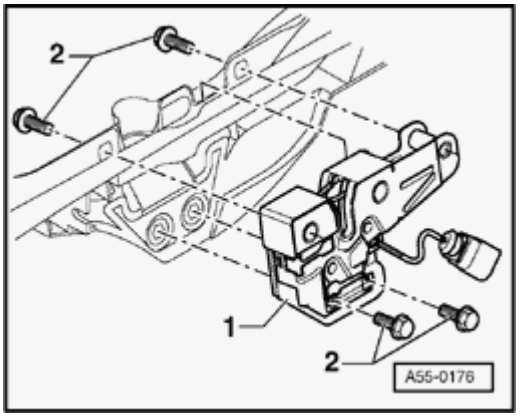


Fig. 25: Removing And Installing Lower Part Of Hood Lock
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Disengage Bowden cable for hood --> **Hood lock cable, removing and installing**.
- Remove bolts - **2** - (4x). Tightening torque: 14 Nm
- Remove lower part of lock - **1** -.
- To adjust hood, move lower section of lock up or down as required.

Adjusting lock carrier buffer stop

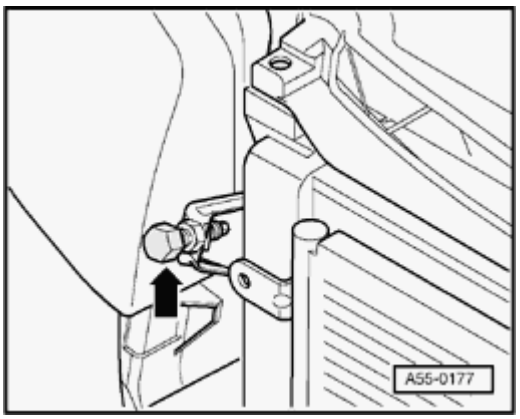


Fig. 26: Adjusting Lock Carrier Buffer Stop
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Buffer stop must make contact lightly on inner plate when hood is closed.
- When adjusting headlights, re-position buffer stop only for fine adjustment. Tightening torque: 15 Nm

Hood gap dimensions

Special tools, testers and auxiliary items required

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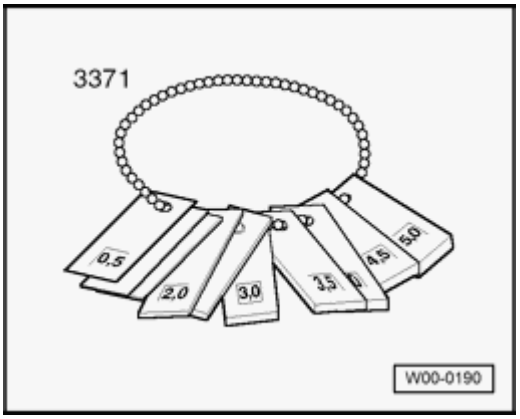
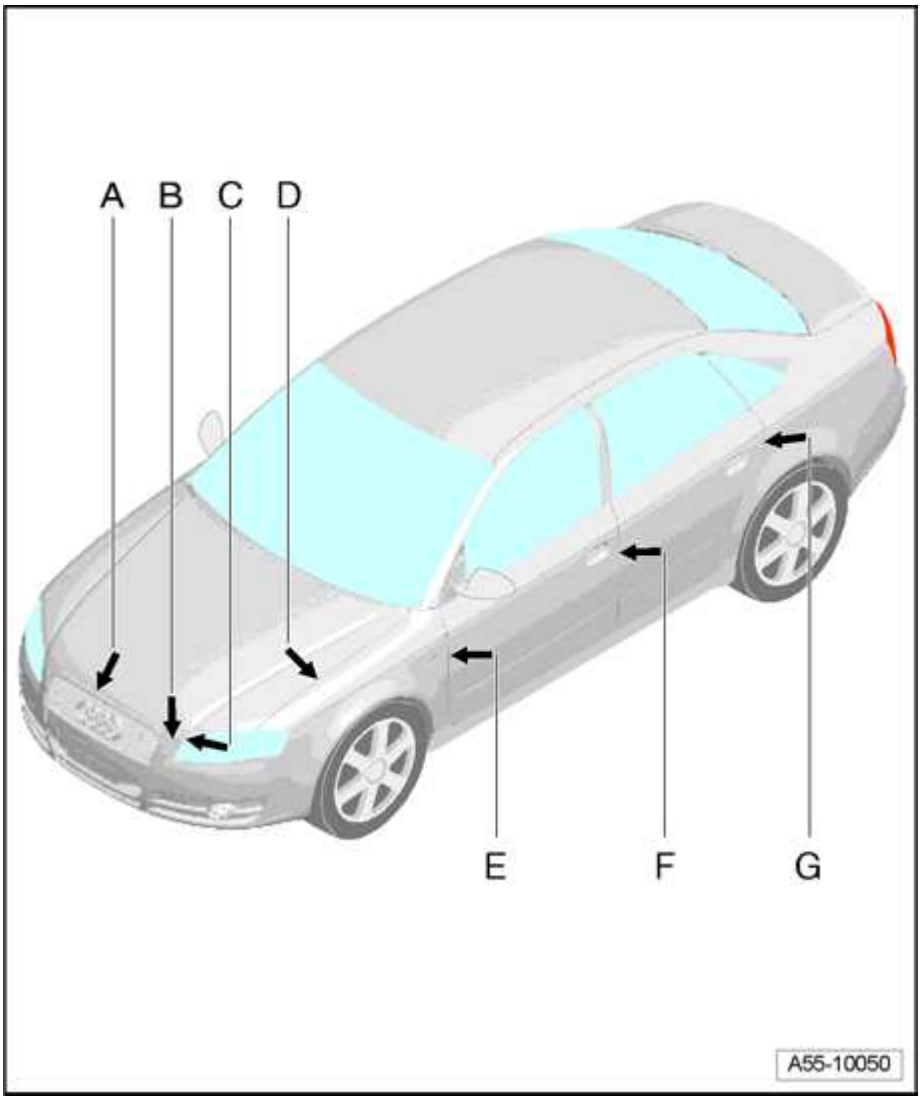


Fig. 27: Identifying Adjustment Gauge 3371
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Adjusting gauge 3371



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Fig. 28: Hood Gap Dimensions
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Dimension - **A** - = 4.5 mm ± 0.5 mm
- Dimension - **B** - = 4.5 mm ± 0.5 mm
- Dimension - **C** - = 4.5 mm ± 0.5 mm
- Dimension - **D** - = 3 mm ± 0.5 mm

Hood lining, removing and installing

Removing

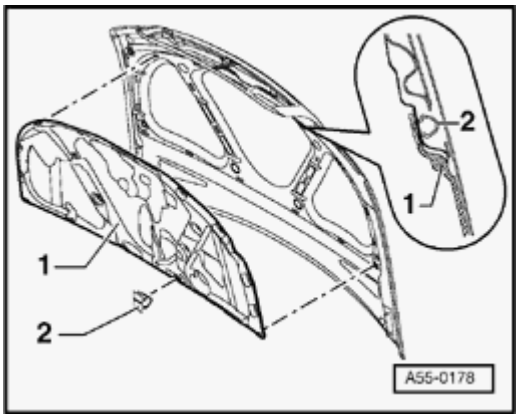


Fig. 29: Hood Lining, Removing And Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Unclip clips - **2** -.
- Remove cover - **1** -.

Installing

- Installation is reverse of removal.

Hood seal, assembly overview

Assembly overview

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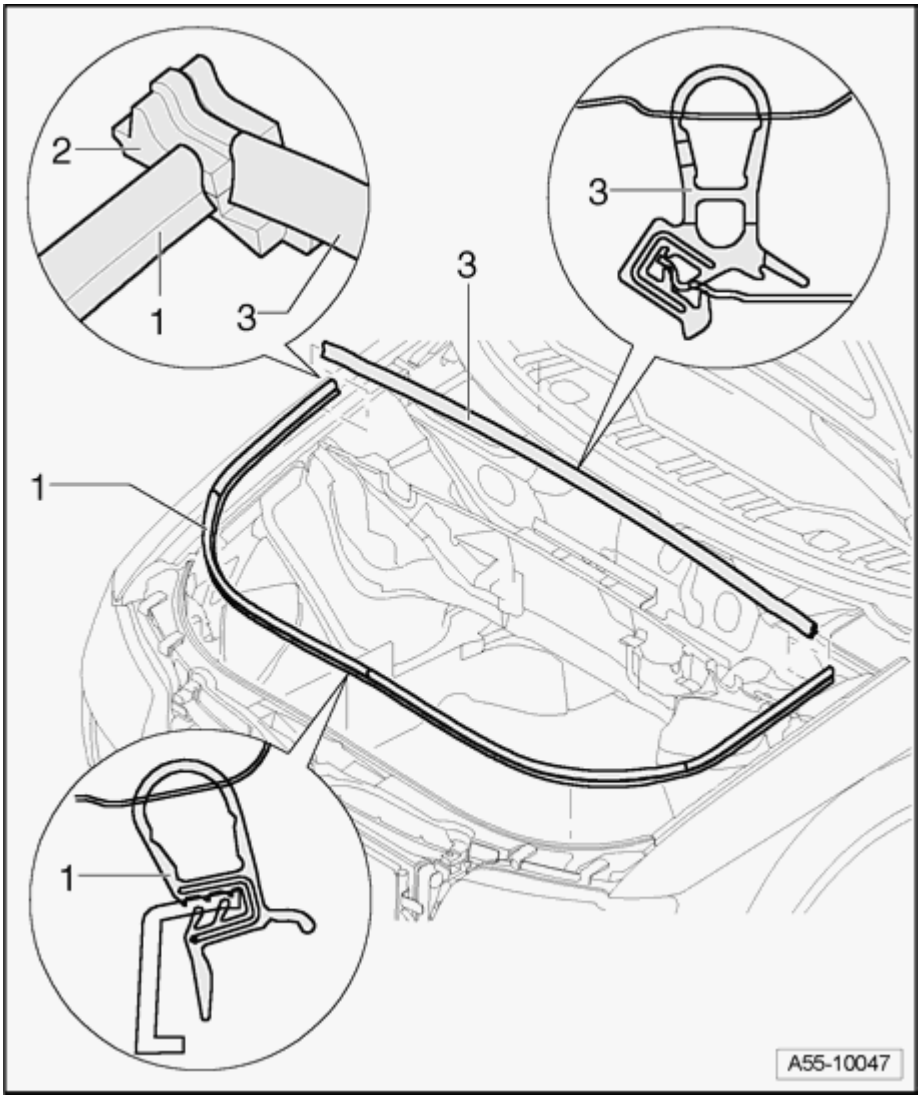


Fig. 30: Hood Seal, Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Seal for lock carrier

- Apply gasket at left and right on foam piece.
- When doing this, make sure it is applied without gaps.
- Compress excess length of gasket along lock carrier.

2 - Left sealing profile

- Self-adhering, adhesion surfaces must be free of dust and grease.

3 - Seal for plenum chamber

- Apply gasket at left and right on foam piece.

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- When doing this, make sure it is applied without gaps.
- Compress excess length of gasket along front panel of plenum chamber.

Impact guard, installing

NOTE:

- **When installing impact guard, drain holes must not be covered.**

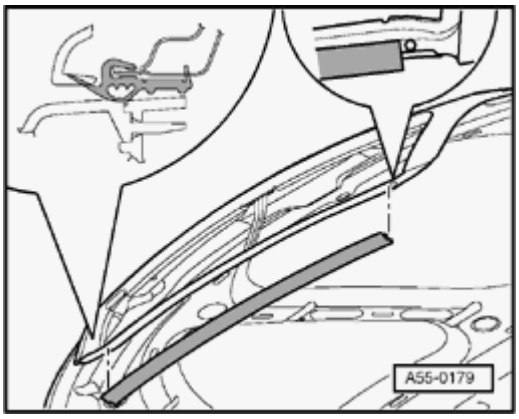


Fig. 31: Impact Guard, Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Insert profile and align at drain holes.
- Press on impact guard evenly.

Hood lock cable, removing and installing

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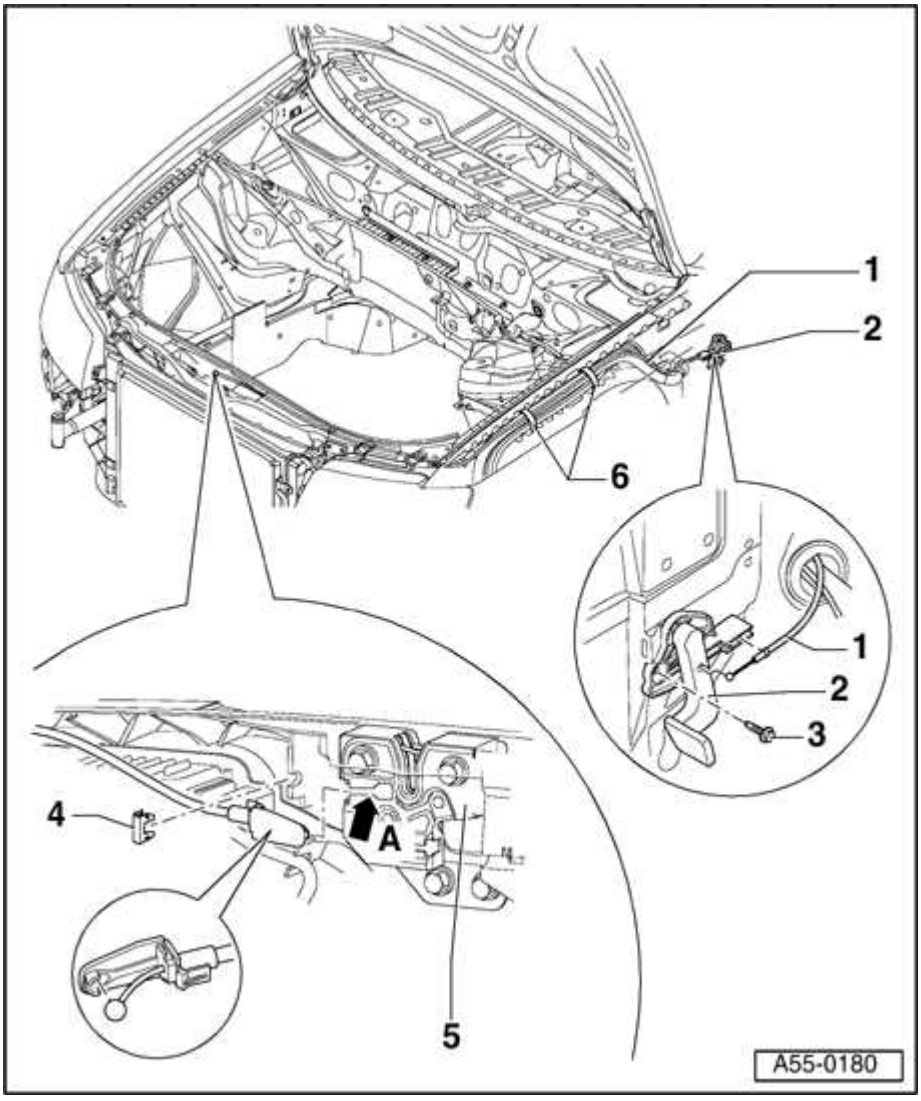


Fig. 32: Hood Lock Cable Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Hood lock cable

- **Removing:**
- Raise vehicle.
- Remove front wheelhousing liner --> **Wheelhousing liner, removing and installing**.
- Remove drivers side storage compartment -->
  - **68 - INTERIOR EQUIPMENT**
  - **68 - INTERIOR EQUIPMENT** for BODY INTERIOR - CABRIOLET
- Remove retaining clamp - **4** -.
- Unclip cable for lower part of hood lock and disengage attachment lug arrow - **A** -.
- **Installing:**

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- Install in reverse order of removal.
- Bring ball on cable for lower part of hood lock into installation position.

2 - Actuating lever

3 - Bolt

- 2.4 Nm

4 - Retaining clip

5 - Lower part of hood lock

- Removing and installing **Removing and installing lower part of hood lock**
- Can be used to adjust height of hood.

6 - Retaining clip

REAR LID (SEDAN)

Rear lid, removing and installing

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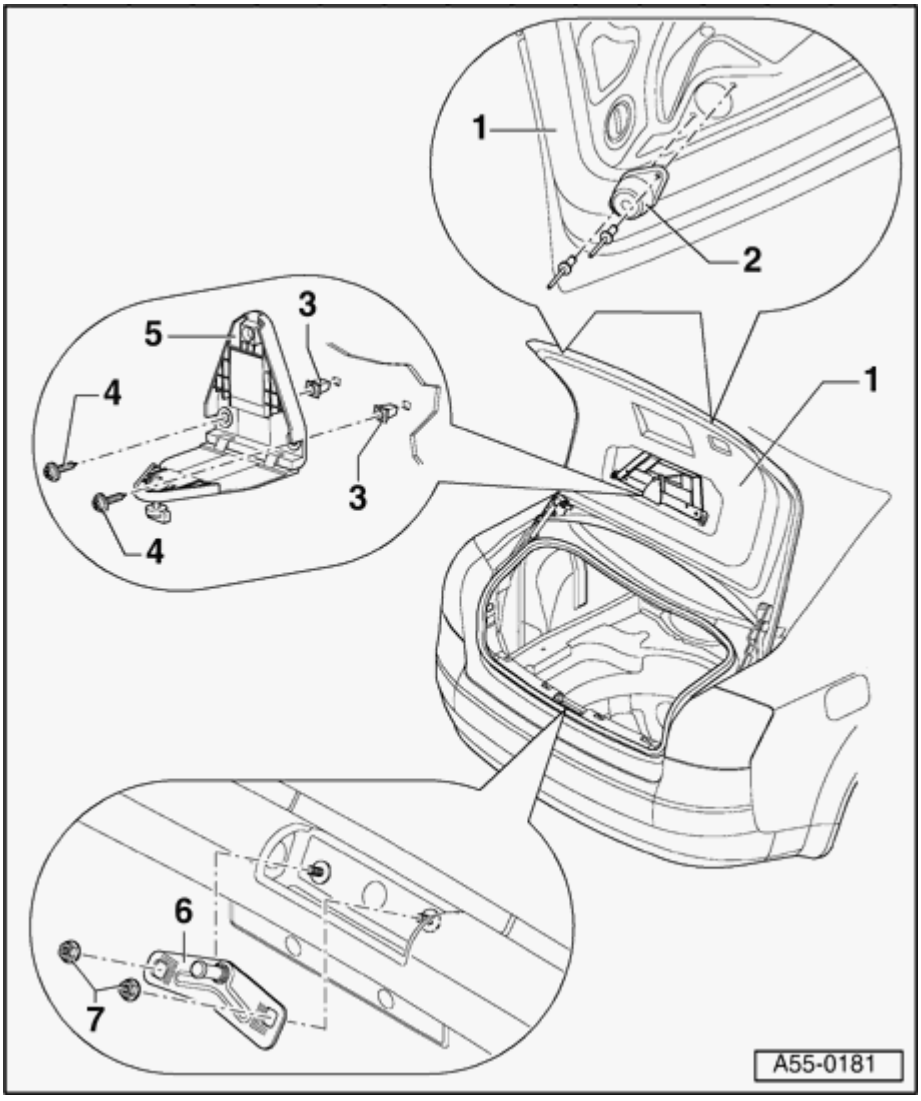


Fig. 33: Rear Lid Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Rear lid

- **Removing:**
- Remove warning triangle with bracket **- 5 -**
- Remove rear lid lining.
- Disconnect electrical harness connectors and pull out of lid.

- Remove the nuts that connect both lid hinges to rear lid.
- Second technician is needed to support and lift hood during removal.
- **Installing:**
- Install in reverse order of removal.

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2 - Buffer stop

- Adjusting --> **Adjusting buffer stops**

3 - Expanding nut

4 - Bolt

5 - Bracket

6 - Striker

- Removing and installing **Striker, removing and installing**
- Adjusting **Adjusting rear lid**

7 - Nut

- 8 Nm

Striker, removing and installing

- Remove trim for rear panel. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

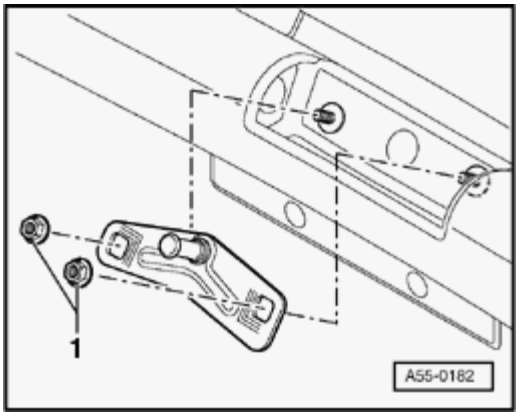


Fig. 34: Striker, Removing And Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Unscrew nuts - **1** -. Tightening torque 8 Nm
- Installation is performed in the reverse order of removal.

Adjusting rear lid

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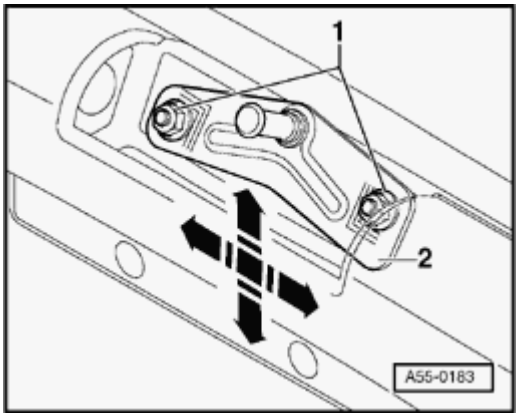


Fig. 35: Adjusting Rear Lid
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove trim for rear panel. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

NOTE:

- **The gas-filled struts must be attached before installing a new rear lid.**

- Loosen nuts - **1** - , striker - **2** - must be able to be moved.
- Carefully close rear lid until lid is flush with side panels.
- Carefully open lid and tighten nuts - **1** - to 8 Nm.

Gap dimensions for rear lid

Special tools, testers and auxiliary items required

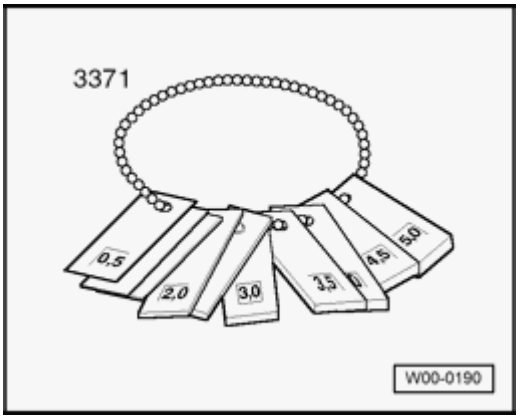


Fig. 36: Identifying Adjustment Gauge 3371
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Adjusting gauge 3371

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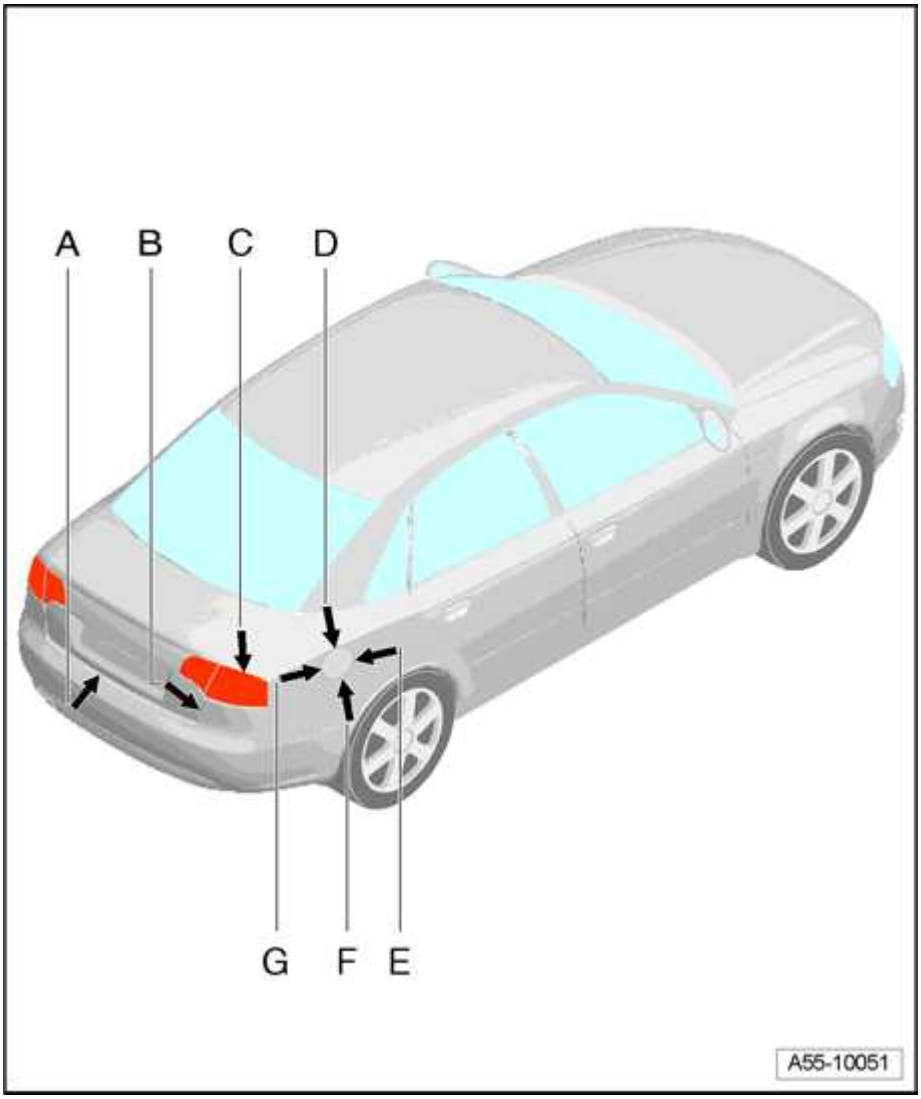


Fig. 37: Gap Dimensions For Rear Lid
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Dimension - **A** - = 4.0 mm ± 0.5 mm
- Dimension - **B** - = 2.0 mm ± 0.5 mm
- Dimension - **C** - = 2.0 mm ± 0.5 mm

Gap dimensions for fuel filler flap

- Removing and installing fuel filler flap --> **Fuel filler flap**

- Dimension - **D** - = 3 mm
- Dimension - **E** - = 3 mm
- Dimension - **F** - = 3.5 mm
- Dimension - **G** - = 3 mm

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Lid lock and handle mechanism, removing and installing

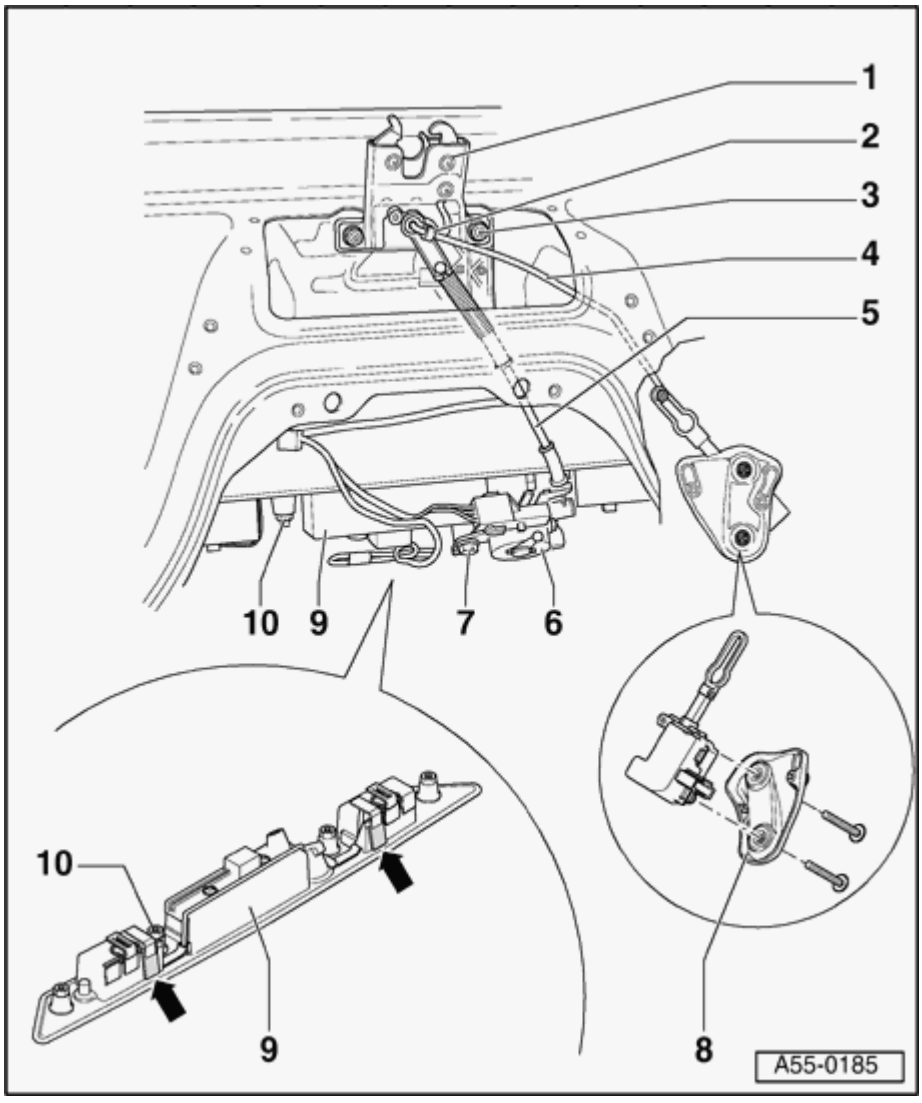


Fig. 38: Lid Lock And Handle Mechanism Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Rear lid lock

- To remove, unclip operating rod from swivelling bush and disengage.
- Unscrew hex nuts - **3** - and remove rear lid lock.

2 - Swivelling bushing

- After installing rear lid lock, engage operating rod and secure.

3 - Nut

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- 8 Nm

4 - Operating rod

5 - Bowden cable

6 - Lock cylinder

- **Removing:**
- Disconnect electrical harness connectors.
- Disengage Bowden cable - **6** - from lock cylinder.
- Remove combination bolt - **7** -.

- Twist lock cylinder 90°.
- Remove lock cylinder from handle mechanism.

7 - Combination bolt

- 8 Nm

8 - Engine

- Removing and installing --> **Remote control motor, removing and installing (country versions)**

9 - Grip piece

- **Removing:**
- Rear lid trim removed.
- Lock cylinder removed.
- Remove hex head collar nuts - **10** -.

- Press in catches - **arrows** -.
- Remove grip piece.

10 - Hex head collar nut

- 8 Nm

Remote control motor, removing and installing (country versions)

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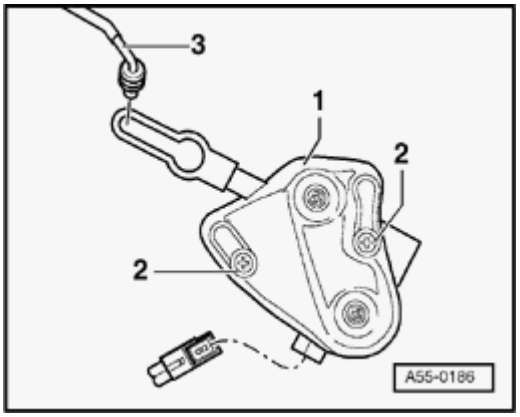


Fig. 39: Remote Control Motor, Removing And Installing (Country Versions)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Unclip operating rod - **3** - and disengage.
- Remove bolt - **2** - (Qty. 2). Tightening torque: 2 Nm
- Remove remote control motor.
- Disconnect connector from remote control motor - **1** -.

- Installation is performed in the reverse order of removal.

Rear lid hinge, removing and installing

Comfort hinge

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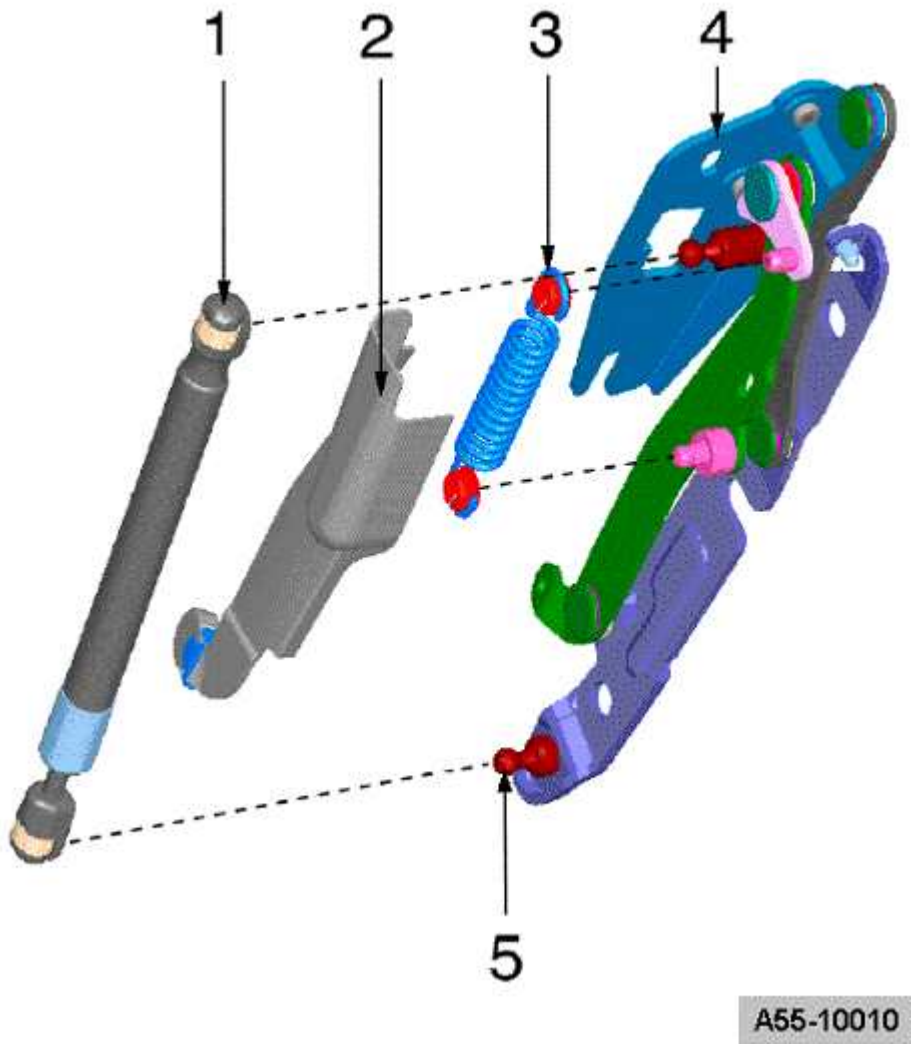


Fig. 40: Rear Lid Hinge Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Gas-filled strut

- Engage tube end of strut at lid.
- Insert cover with angled retractors in hinge lever.
- Only then press cover at top over hinge lever until it engages audibly.
- Press stop into hinge eye.

2 - Cover

- Slide in cover from below between gas-filled strut and long hinge lever.

3 - Spring

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- Before removing, remove gas-filled strut and cover.
- To remove, press off spring over ball stud.
- While installing, plastic shells of spring must engage cleanly over ball stud.

4 - Comfort hinge

5 - Ball stud

- No replacement part, belongs to delivery casing

- Gas-filled strut, removing and installing **Gas-filled strut, removing and installing**

Cover for rear lid hinge

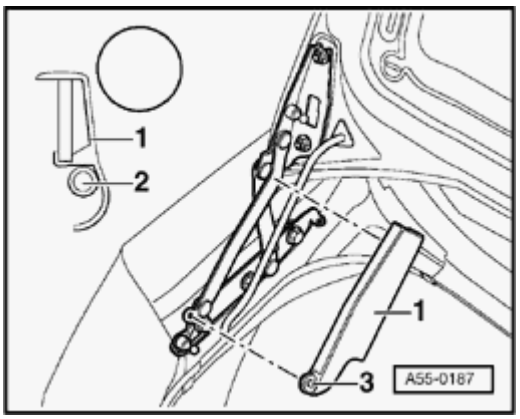


Fig. 41: Placing Electric Wiring Or Wiring For Central Locking System Into Lower Retainer Of Cable Guide At Cover
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Place electric wiring or wiring for central locking system - **2** - into lower retainer of cable guide at cover - **1** -.
- Insert trim - **1** - for lid hinge on long hinge lever at bottom and clip in audibly toward top onto hinge lever.
- Engage clip - **3** - on trim into hinge lever.

Removing and installing rear lid hinges

NOTE:

- **For easier adjustment of the rear lid hinges, use gradations marked on the hinges.**

Removing

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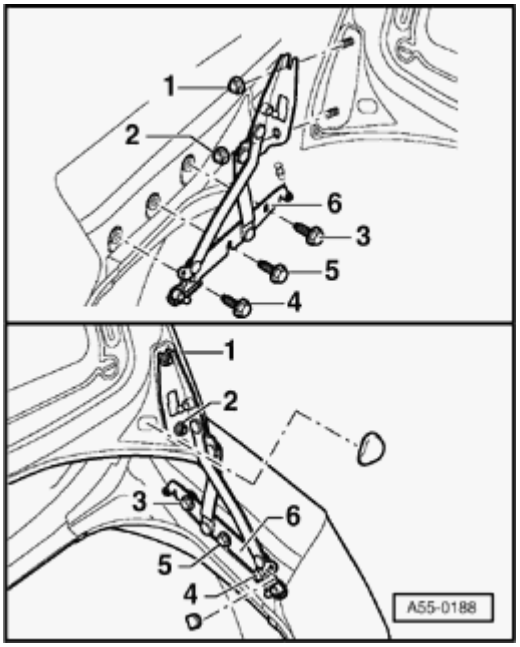


Fig. 42: Removing Rear Lid Hinges
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Loosen nut - **1** -. Tightening torque 21 Nm
- Unscrew nut - **2** -. Tightening torque: 21 Nm
- Lift off lid from hinge.
- Remove bolts - **3** - and - **4** -. Tightening torque: 21 Nm

- Only loosen center bolt - **5** -. Tightening torque: 21 Nm
- Remove hinge - **6** -.
- Installation is performed in the reverse order of removal.

Gas-filled strut, removing and installing

NOTE:

- **When removing or installing the gas-filled strut, push back the opened rear lid only slightly so as to avoid damaging components.**

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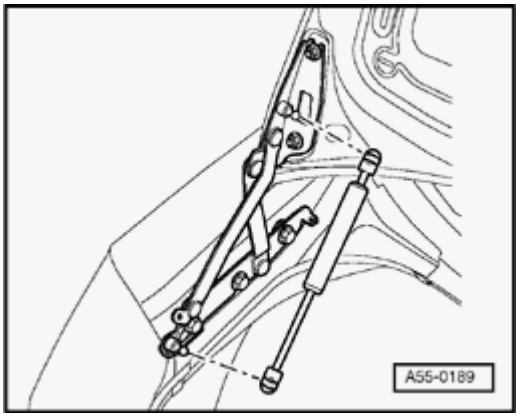


Fig. 43: Removing As-Filled Strut
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Lift retaining springs in succession on both ends using screwdriver and remove gas-filled strut.

Installation

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

Releasing gas from gas-filled strut

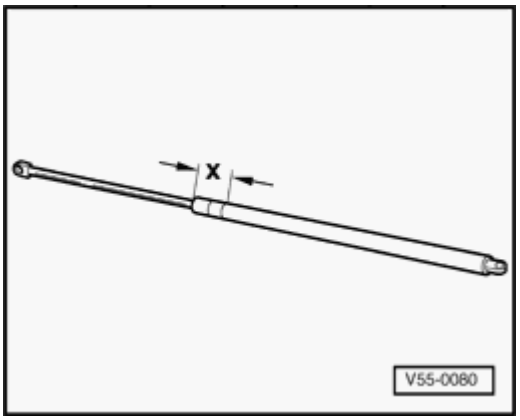


Fig. 44: Identifying Gas-filled Strut Area To be Clamped in Vice
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Clamp gas-filled strut in vice area x. Dimension of - **x** - = 50 mm (2 in.).

CAUTION: Clamping must only be done in this area, otherwise there is a risk of an accident.

Always wear eye protection when performing this procedure.

- Cover area of sawn portion with a rag to absorb oil spraying out.

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

Rear lid seal, installing

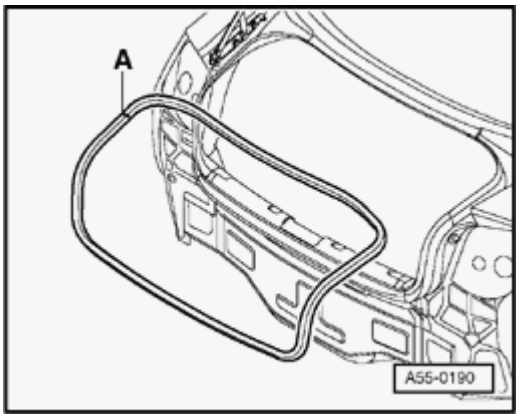


Fig. 45: Rear Lid Seal, Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- The butt joint - **position A** - of the rear lid seal must be aligned with the ball socket of the left hinge.
- Press seal on.

Adjusting buffer stops

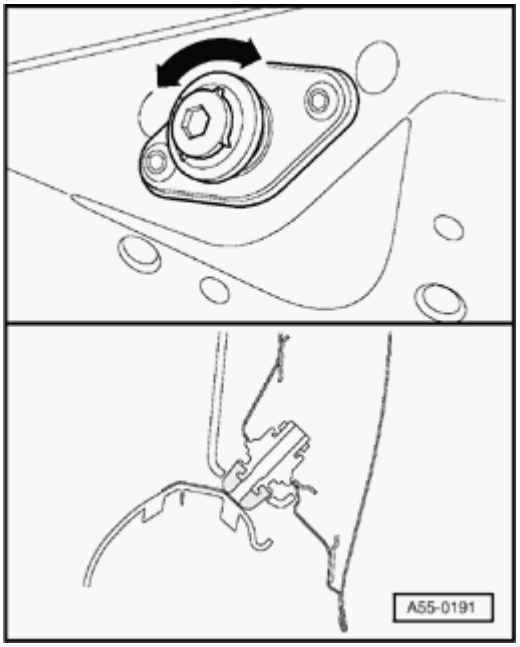


Fig. 46: Adjusting Buffer Stops
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Open lid.

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- Remove rubber cap.
- Screw in buffer stops until they reach stop.
- Unscrew stop again in steps.

- Press rubber cap on.
- When adjusted correctly and with lid closed, buffer stops must make contact lightly on luggage compartment edge.

Fuel filler flap

Assembly overview

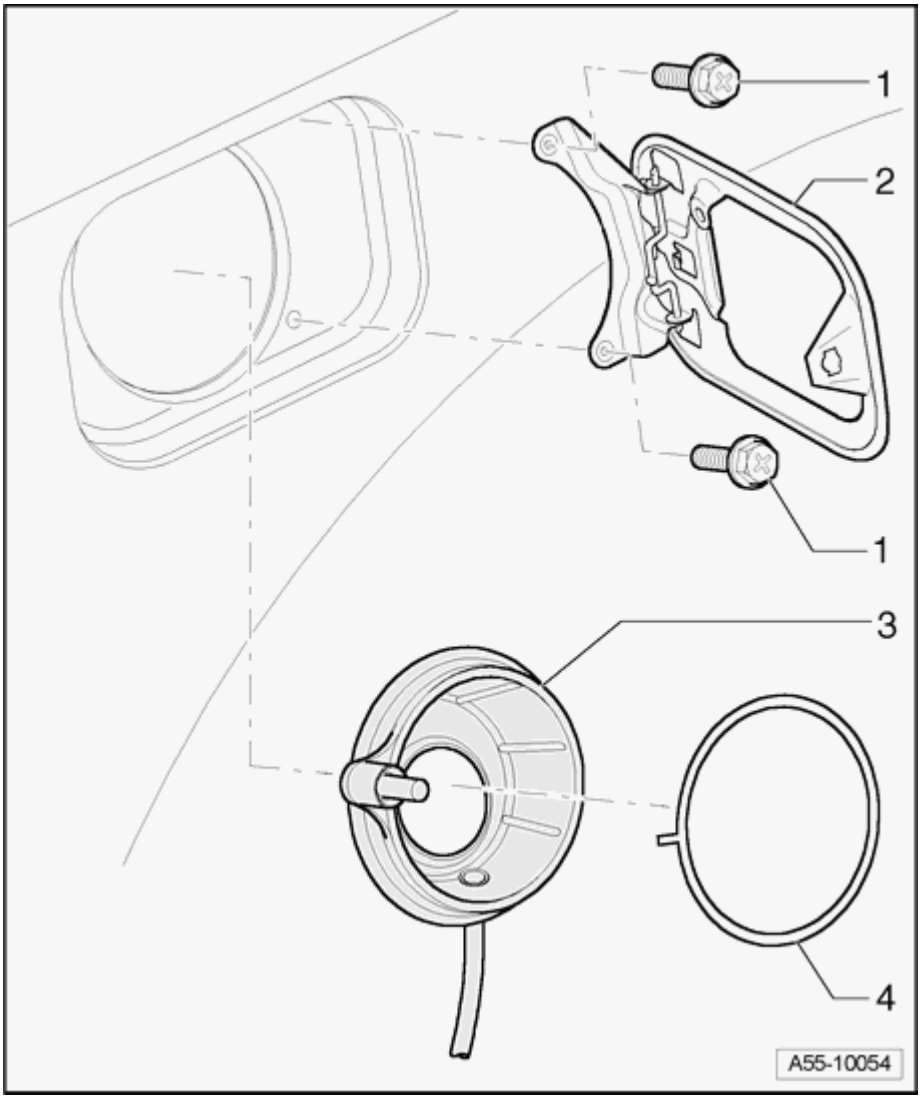


Fig. 47: Fuel Filler Flap Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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1 - Sheet-metal screw

- 1.5 Nm

2 - Fuel filler flap

- Panel gap dimensions **Gap dimensions for fuel filler flap**

3 - Fuel filler flap cup

- Coat with soap solution to assist assembly.

4 - Ring for fuel filler flap cup.

REAR LID (AVANT)

Rear lid, removing and installing

Removing

- Remove rear lid trim. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
- Disconnect or remove electrical harness connectors and hose for rear window washer system.
- Prop up and secure rear lid in open position.

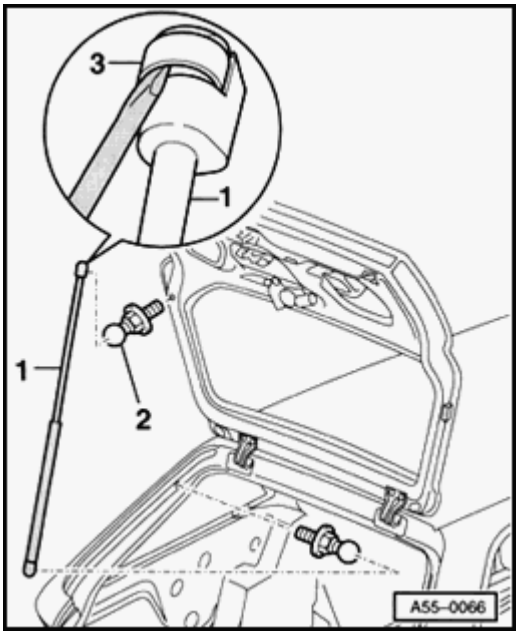


Fig. 48: Using Screwdriver To Lift Retaining Spring And Remove Gas-Filled Strut From Upper Ball Stud

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

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

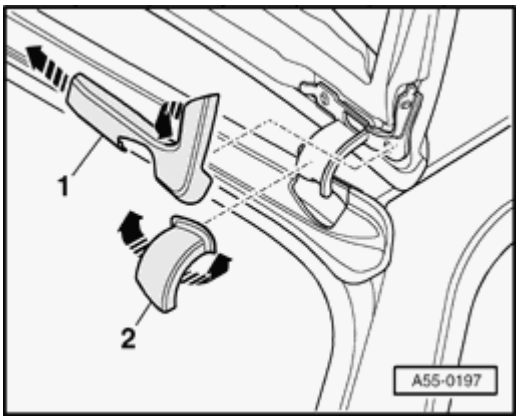


Fig. 49: Removing Cover For Rear Lid Hinge And Cable Guide From Rear Lid Hinge
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove cover - **1** - for rear lid hinge and cable guide - **2** - from rear lid hinge - **arrows** -.

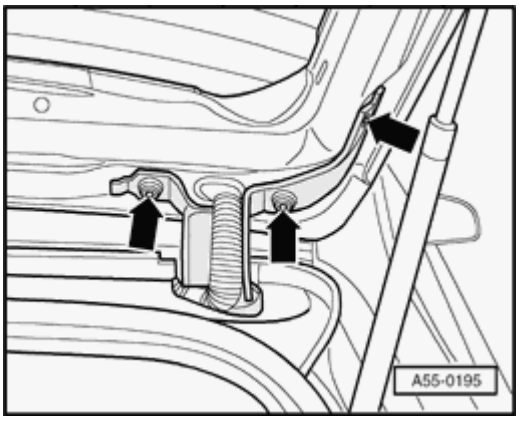


Fig. 50: Removing Rear Lid Bolts At Left/Right
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts - **arrows** - at left and right.
- Second technician is needed to support and lift hood during removal.
- Remove rear lid.

Installing

Installation is the reverse of removal, noting the following:

- When installing, tightening torque 21 Nm.
- Adjusting rear lid --> **Rear lid, adjusting**.

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Insulation mat to rear lid, adhering

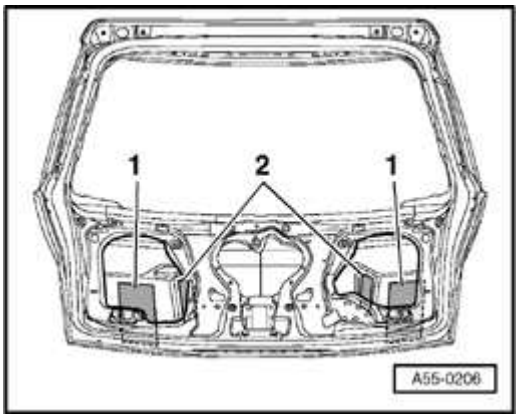


Fig. 51: Insulation Mat To Rear Lid, Adhering
Courtesy of VOLKSWAGEN UNITED STATES, INC.

On a new rear lid, insulation mats must be adhered to surfaces depicted in the illustration after painting:

- Cut the insulation mats from self-adhering insulation Part No. 323 863 950 to the following dimensions:

1 - Insulation mat 100 x 150 mm (2x)

2 - Insulation mat 30 x 100 mm (2x)

Rear lid, adjusting

NOTE:

- **The gas-filled struts must be attached before installing a new rear lid.**

- Remove rear cross panel trim. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

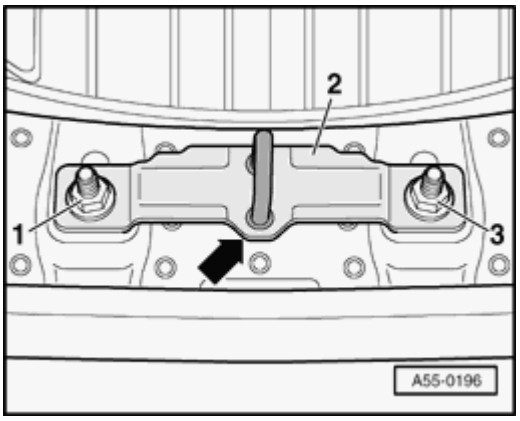


Fig. 52: Removing/Installing Striker Combination Nuts
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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- Loosen combination nuts - **1** - and - **3** - , striker - **2** - must be adjustable.

NOTE:

- **When installing a striker, make sure it is in the proper installation position, for this the tab - arrow - must point to the rear.**

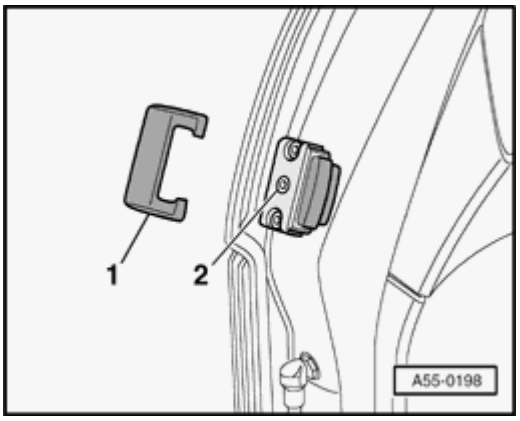


Fig. 53: Removing/Installing Cover & Adjustment Screw
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Unclip cover - **1** - at rear lid stop.
- Screw the adjustment screw - **2** - counterclockwise into position "0".

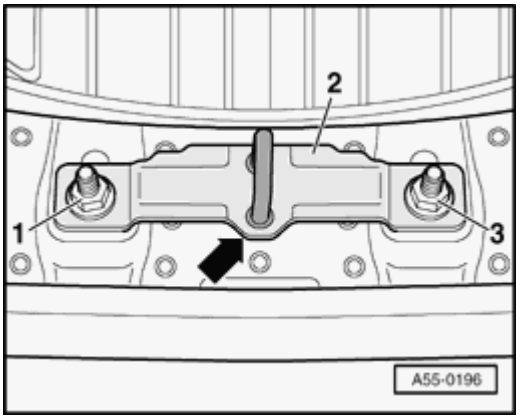


Fig. 54: Removing/Installing Striker Combination Nuts
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Tighten nuts - **1** - and - **3** - hand tight.
- Close rear lid.
- Press lid by hand into chassis approx. 2 mm.
- Open rear lid in this position and tighten nuts - **1** - and - **3** - to 21 Nm.

- Check whether rear lid closes easily and without play at lock. Repeat adjustment if necessary.
- Check whether lid sits without play by pressing on the side edge of rear lid below rear window.

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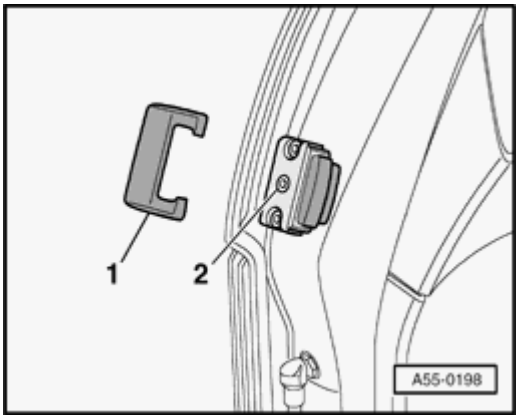


Fig. 55: Removing/Installing Cover & Adjustment Screw
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pre-tension stop by turning adjustment screw - **2** - clockwise if necessary.
- Check whether rear lid still closes easily, repeat adjustment if necessary.
- Checking adjustment dimensions --> **Adjustment dimensions for rear lid**.

Rear lid hinge, removing and installing

Removing

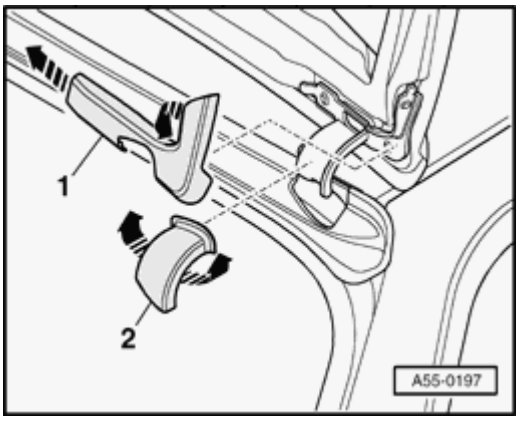


Fig. 56: Removing Cover For Rear Lid Hinge And Cable Guide From Rear Lid Hinge
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove cover - **1** - for rear lid hinge and cable guide - **2** - from rear lid hinge - **arrows** -.

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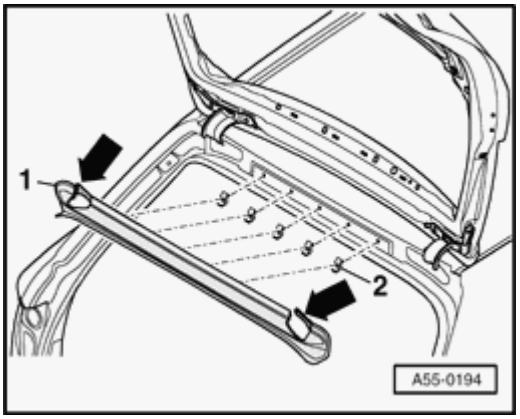


Fig. 57: Removing Outer Roof Frame Trim
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove outer roof frame trim - **1** - , for this purpose lift trim from retaining clips - **2** - after unclipping and guide tabs - **arrows** - around the hinge.
- Remove D-pillar trim. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

NOTE:

- **To prevent damage to paint, support and secure rear lid.**

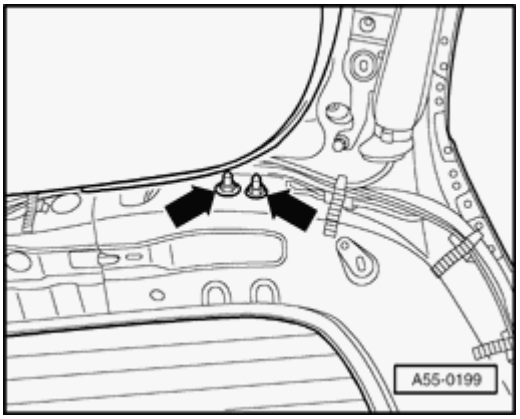


Fig. 58: Removing Nuts
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove nuts - **arrows** -.

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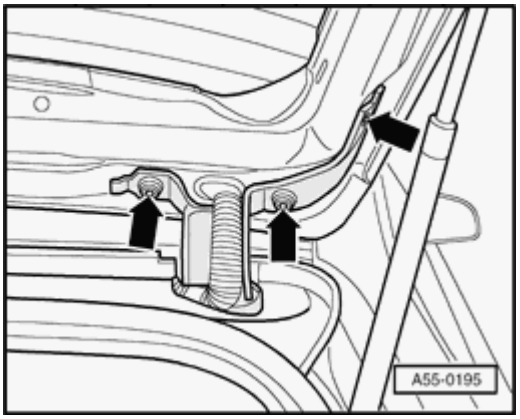


Fig. 59: Removing Rear Lid Bolts At Left/Right
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts - **arrows** - at left and right.
- Remove hinge.

Installing

Installation is the reverse of removal, noting the following:

- When installing, tightening torque 21 Nm.
- Adjusting rear lid --> **Rear lid, adjusting**.

Gas-filled strut for rear lid, removing and installing

Removing

- Prop up and secure rear lid in open position.

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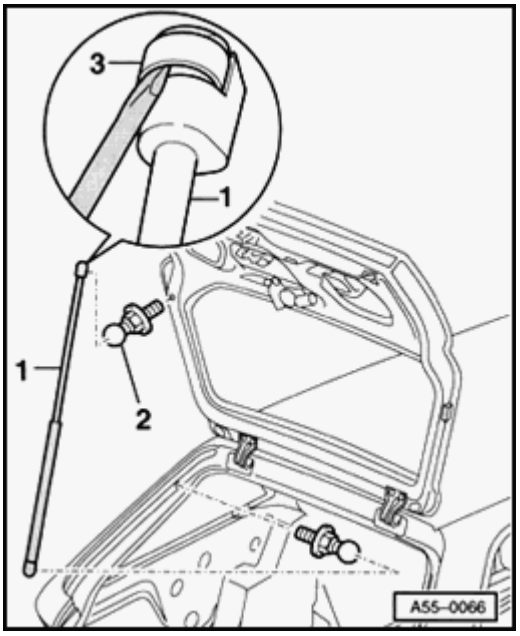


Fig. 60: Using Screwdriver To Lift Retaining Spring And Remove Gas-Filled Strut From Upper Ball Stud
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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

NOTE:

- **Following complete removal of the gas-filled strut, check for correct positioning during installation.**
- **Sound insulation component must be installed on the body side.**

NOTE:

-

Installing

Installation is the reverse of removal, noting the following:

- To install, press gas-filled strut onto ball studs so that it engages in position.
- Ball stud tightening torque: 15 $Nm^{-1\ Nm}$

Rear lid seal, removing and installing

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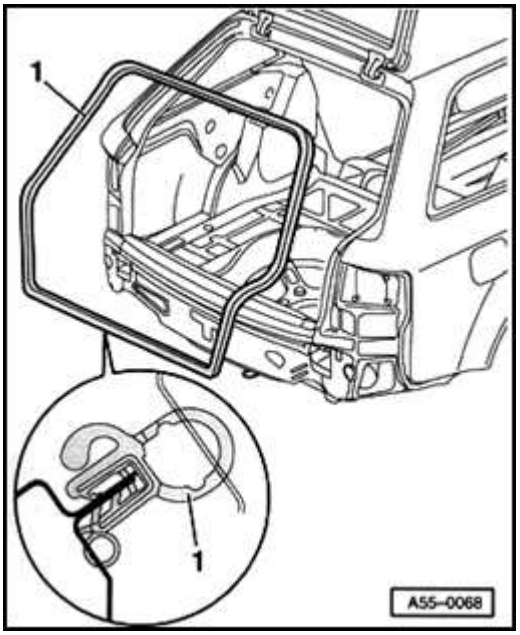


Fig. 61: Rear Lid Seal, Removing And Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Open rear lid and pull out seal.
- When installing, insert seal in lower left and right corners first.
- Press seal - **1** - onto body as shown.

Adjustment dimensions for rear lid

Special tools, testers and auxiliary items required

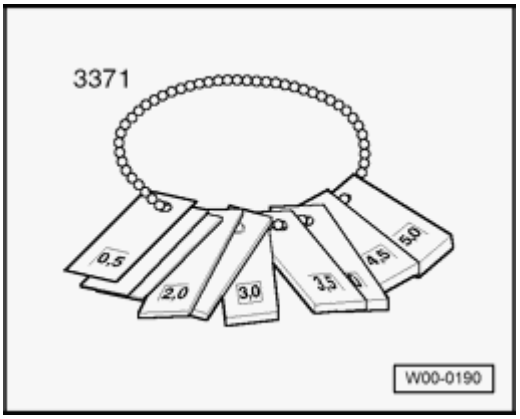


Fig. 62: Identifying Adjustment Gauge 3371
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Adjusting gauge 3371

Panel gap dimensions

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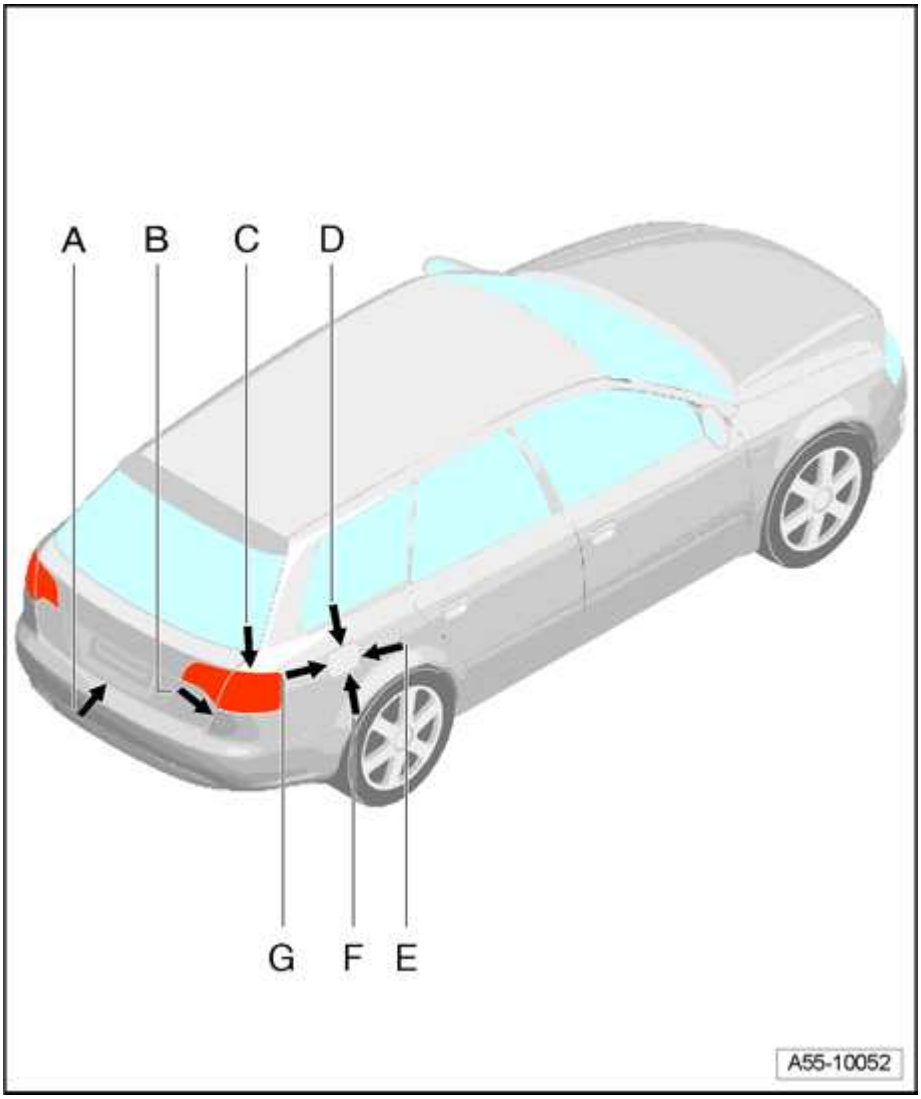


Fig. 63: Adjustment dimensions for rear lid
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Dimension - **A** - = 4 mm
- Dimension - **B** - = 4.5 mm
- Dimension - **C** - = 1.75 mm

Gap dimensions for fuel filler flap

- Dimension - **D** - = 3 mm
- Dimension - **E** - = 3 mm
- Dimension - **F** - = 3.5 mm
- Dimension - **G** - = 3 mm

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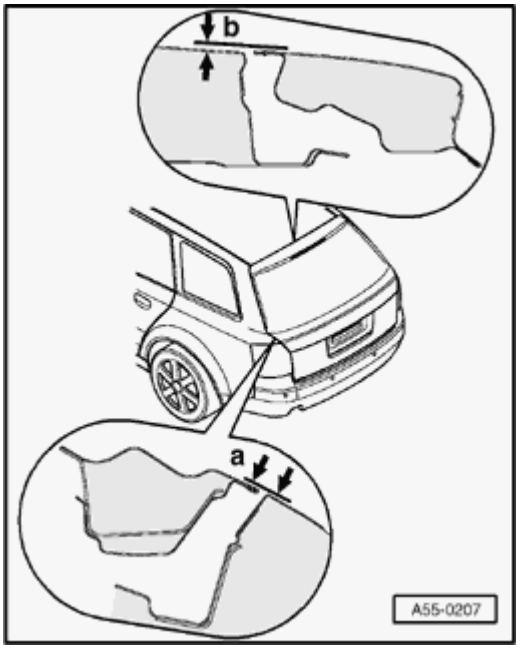


Fig. 64: Positioning Rear Lid In Chassis Cut-Out Just So That Gap Measurement On Right Equals Gap Measurement On Left
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Position rear lid in chassis cut-out just so that the gap measurement on the right equals the gap measurement on the left.
- Check whether chassis surface below rear window stands flush with chassis surface of lower side panel - **arrows a** -.
- Check whether rear lid is flush with roof (and projects slightly upward).

- Dimension - **b** - = 0 to 0.5 mm

Lock cylinder for rear lid, removing and installing

Removing

- Remove rear lid trim. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

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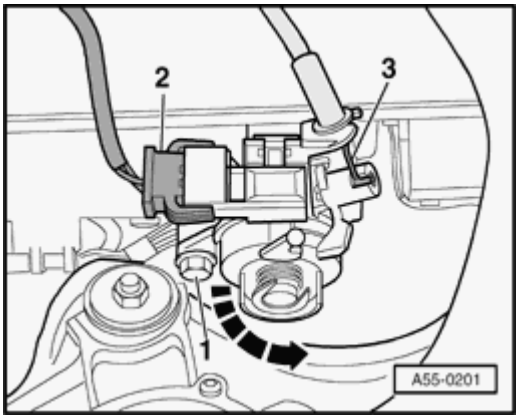


Fig. 65: Lock Cylinder For Rear Lid, Removing And Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Disconnect electrical harness connector - **2** -.
- Disengage actuating link - **3** - to rear lid lock.
- Remove bolt - **1** -.
- Tightening torque: 8 Nm

- Turn lock cylinder 90° around its own shaft and remove lock cylinder.

Installing

Installation is performed in the reverse order of removal.

Handle mechanism for rear lid, removing and installing

Removing

- Remove lock cylinder for rear lid --> **Lock cylinder for rear lid, removing and installing**.
- Disconnect inner electrical harness connector at grip piece.

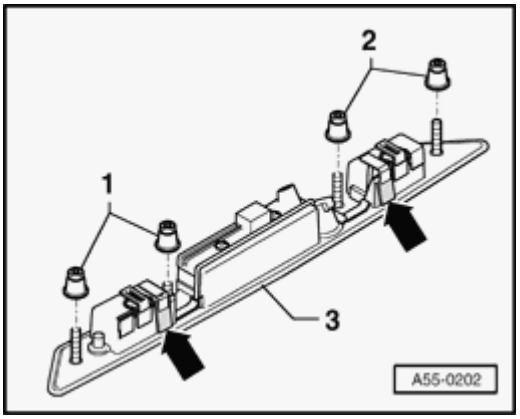


Fig. 66: Removing Nuts & Pressing Both Catches Down And Removing Grip Piece
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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- Remove nuts (Qty. 4) - **1** - and - **2** - (different versions; mark for re-installation).
- Tightening torque: 8 Nm
- Press both catches - **arrows** - down and remove grip piece - **3** -.

Installing

Installation is performed in the reverse order of removal.

Rear lid lock, removing and installing

Assembly overview

As of Vehicle Identification Number (VIN) 400 001

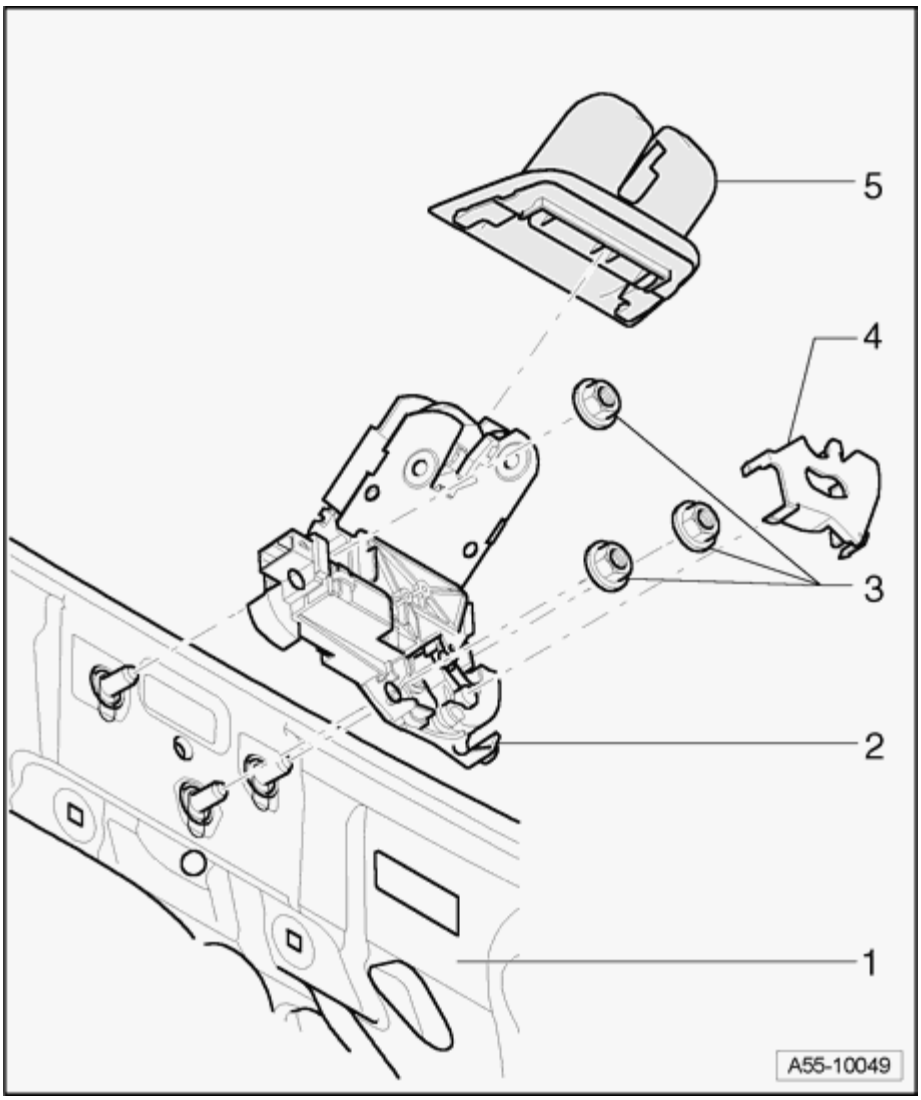


Fig. 67: Rear Lid Lock Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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1 - Rear lid

2 - Lid lock

- Removing **Removing lid lock**

3 - Hex nut

- 21 Nm

4 - Cover

- Connected to lid lock as anti-theft device.

5 - Cover for lid lock

- Slide on lid lock before installing rear lid trim.

Removing lid lock

- Remove lower rear lid trim. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

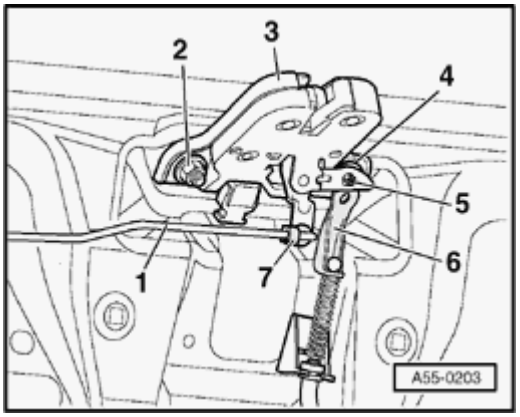


Fig. 68: Lid Lock Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Disengage actuating link - **6** - , for this purpose press expanding clip - **5** - from operating lever.
- Disengage operating rod - **1** - to actuator, for this purpose turn hinge arm - **7** - clockwise and remove operating rod.
- Remove nuts - **2** - and - **4** - and remove rear lid lock - **3** -.
- Tightening torque: 21 Nm

Installing

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Installation is performed in the reverse order of removal.

Rear lid lock actuator, removing and installing

Removing

- Remove lower rear lid trim. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

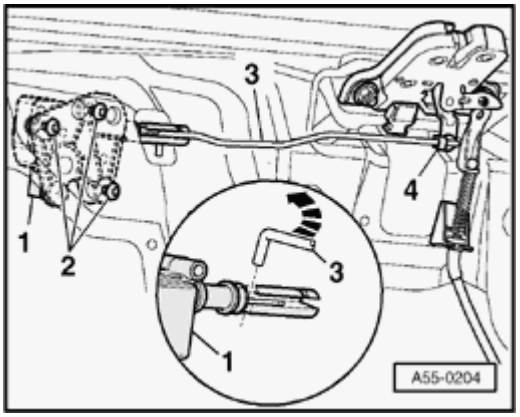


Fig. 69: Rear Lid Lock Actuator, Removing And Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Disengage operating rod - **3** - at rear lid lock, for this purpose turn hinge arm - **4** - clockwise and remove operating rod.
- Disengage operating rod at actuator - **1** - , for this purpose slide operating rod to actuator and turn approx. 90° out of mount - **arrow** -.
- Loosen bolts - **2** - approx. 2 rotations and disengage actuator at rear lid.
- Disconnect electrical harness connector.

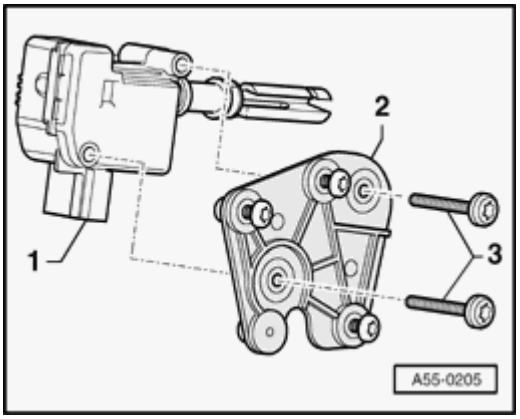


Fig. 70: Removing Bolts, Adapter Plate From Actuator
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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- Remove bolts - **3** -.
- Tightening torque 2 Nm
- Remove adapter plate - **2** - from actuator - **1** -.

Installing

Installation is performed in the reverse order of removal.

Fuel filler flap

Assembly overview

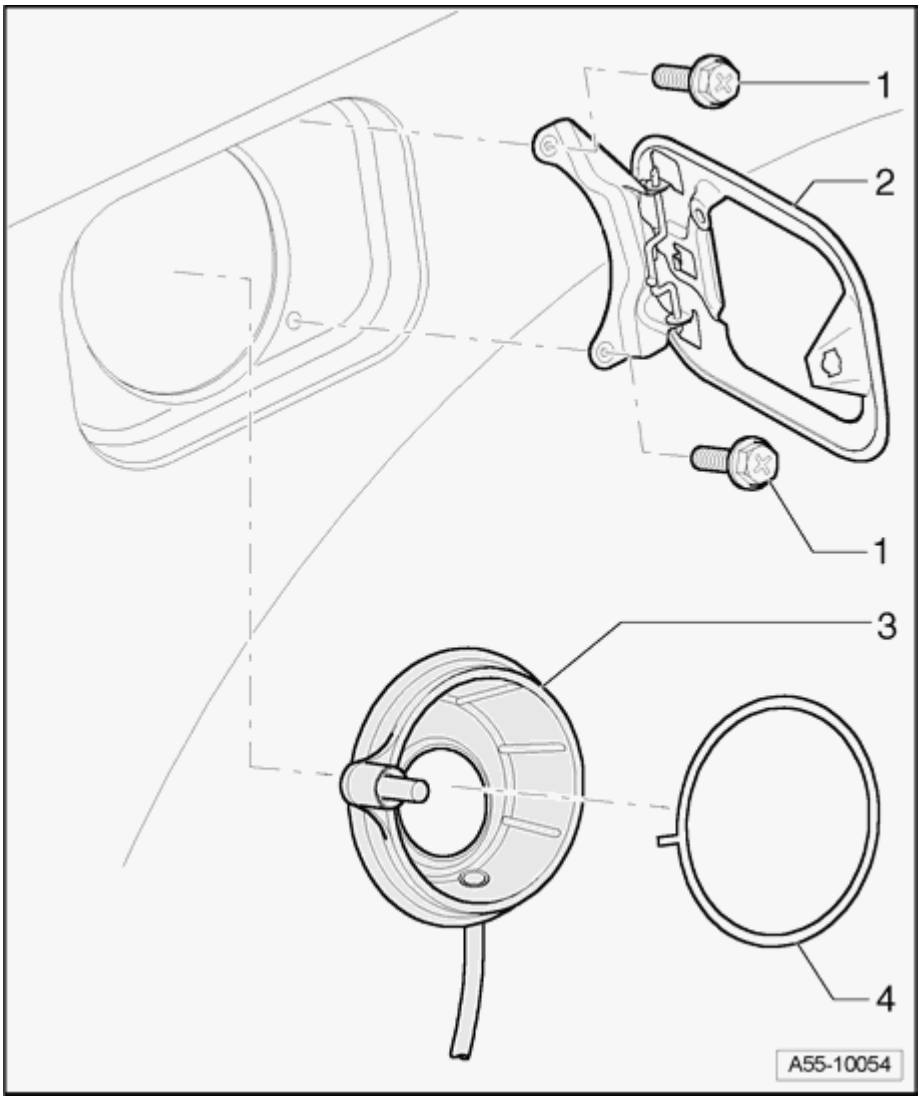


Fig. 71: Fuel Filler Flap Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Sheet-metal screw

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- 1.5 Nm

2 - Fuel filler flap

- Panel gap dimensions **Gap dimensions for fuel filler flap**

3 - Fuel filler flap cup

- Coat with soap solution to assist assembly.

4 - Ring for fuel filler flap cup

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60 SUNROOF

SUNROOF, SERVICING

Assembly overview

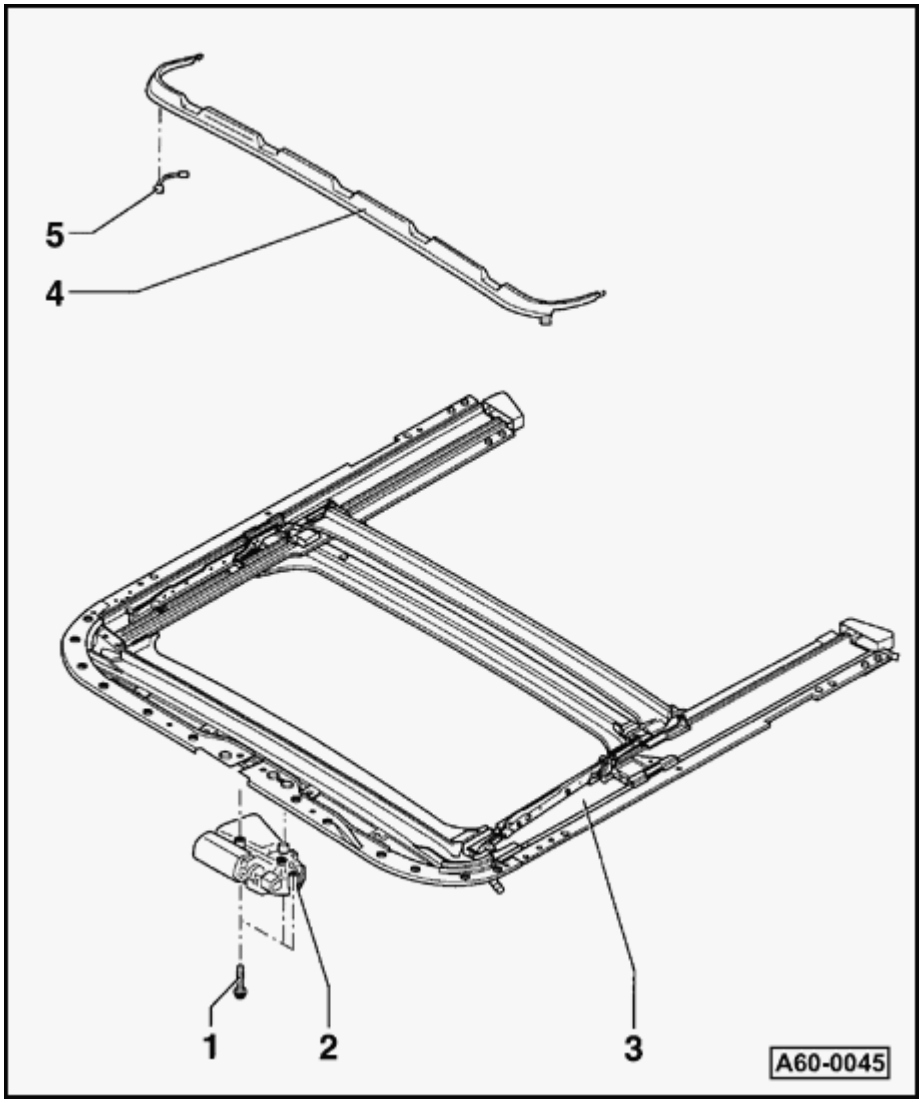


Fig. 149: Sunroof Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Combination bolt (T 25)

- 3Nm

2 - Sunroof motor

- The sunroof motor casing must be removed at molded headliner before removing motor -->

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- **70 - INTERIOR TRIM**
- **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

3 - Frame

- Detach headliner before removing
- Removing and installing is described in -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

4 - Wind deflector

- Removal --> **Wind deflector, removing and installing**

5 - Extension spring for wind deflector

Wind deflector, removing and installing

Removing:

- Slide sunroof completely open

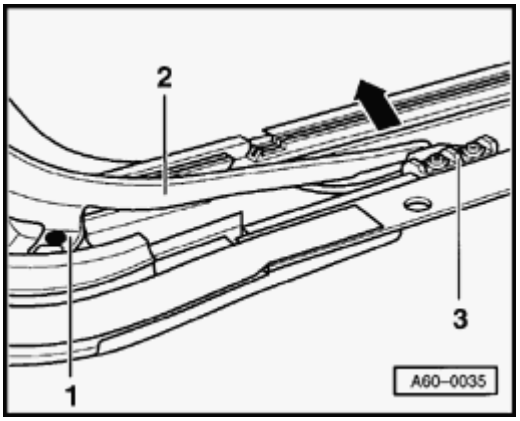


Fig. 150: Wind Deflector, Removing And Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Press wind deflector - **2** - out of bracket - **3** - in - **direction of arrow** -.
- Lift wind deflector towards rear and out of sunroof opening.

Installation:

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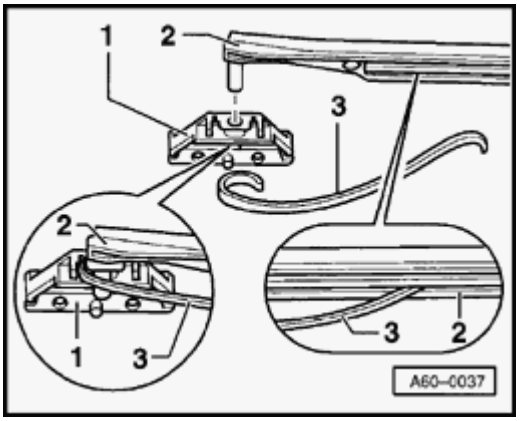


Fig. 151: Laying Spring Around Retaining Pins On Wind Deflector
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Lay spring - **3** - around retaining pins on wind deflector - **2** -.
- Also place spring in groove on wind deflector.

NOTE:

- **Bracket - 1 - is shown in detached condition for the sake of diagram clarity.**

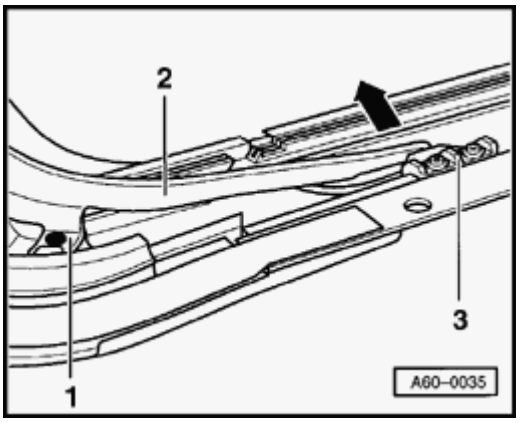


Fig. 152: Wind Deflector, Removing And Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Slide in stop - **1** - of wind deflector - **2** - toward front under roof cut-out.
- Insert a wind deflector retaining pin into bracket - **3** -.
- Push opposite side of wind deflector slightly towards center of vehicle to snap second retaining pin into bracket.

Sunroof panel, removing and installing (assembly overview)

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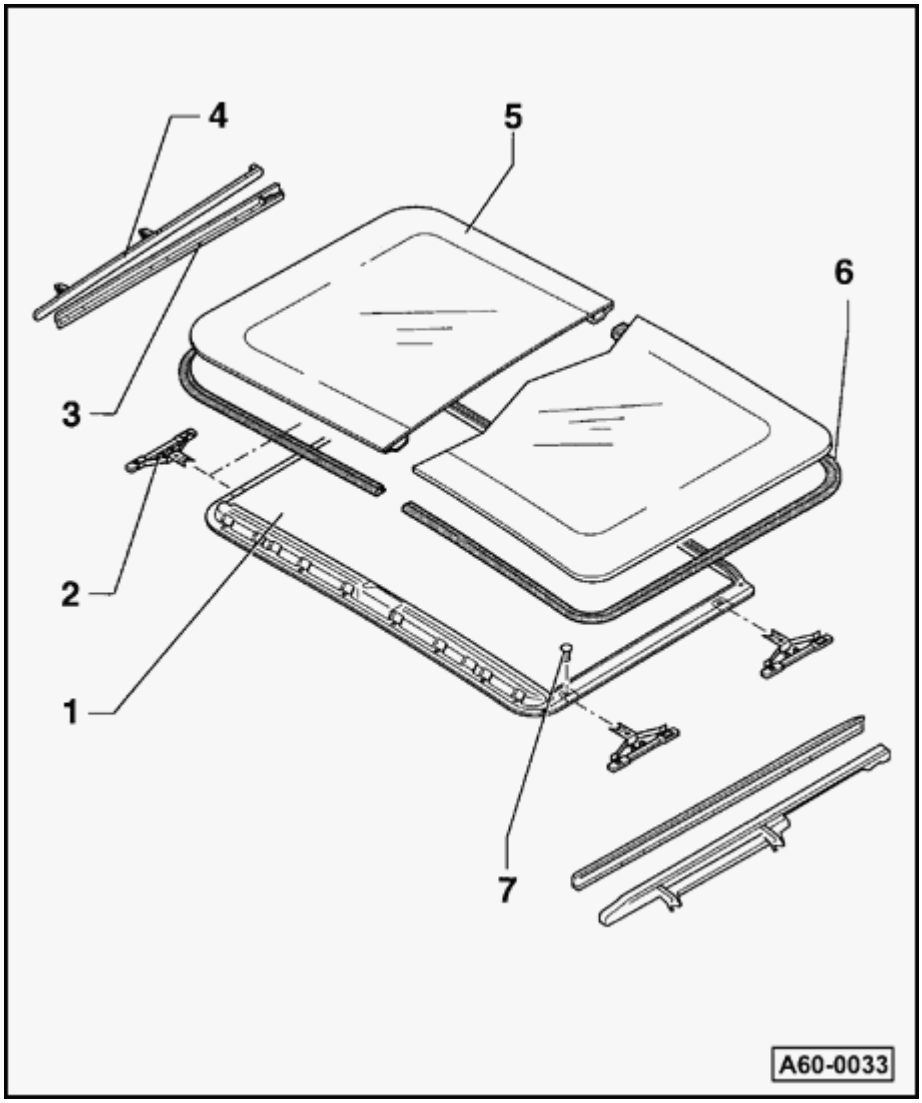


Fig. 153: Sunroof Panel, Removing And Installing (Assembly Overview)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Sliding headliner

- Only for vehicles with glass panel
- For vehicles with solar panel, slide into sunroof toward rear
- Detach headliner before removing
- Removal --> **Sunroof headliner, removing and installing**.

2 - Spring for sliding headliner

- Detach cover frame for molded headliner before removal. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

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- To remove, remove countersunk screw - **7** - at front and rear.
- Push front spring - **2** - forward and rear spring rearward, remove both from sliding headliner.
- Pull sliding headliner on opposite guide track out of side and lift out.

3 - Lower trim

- Removal --> **Trim, removing and installing**.

4 - Upper trim

- Removal --> **Trim, removing and installing**.

NOTE:

- **For vehicles as of calendar week 27/2002, a boot is installed in place of upper/lower panel.**
- **Removal and installation is described on --> Boot, removing and installing (vehicles as of CW 27/2002 >).**

5 - Sunroof panel

- To remove, detach headliner
- Remove left and right panels --> **Trim, removing and installing**.
- Remove Torx bolts (T 25) left and right at sunroof panel and lift out panel --> **Sunroof panel, removing**.
- Adjusting --> **Sunroof panel, adjusting**.

6 - Panel seal

- Removal --> **Panel seal, replacing**.

7 - Countersunk screw

- 1.5Nm.

Sunroof headliner, removing and installing

- Sunroof panel removed

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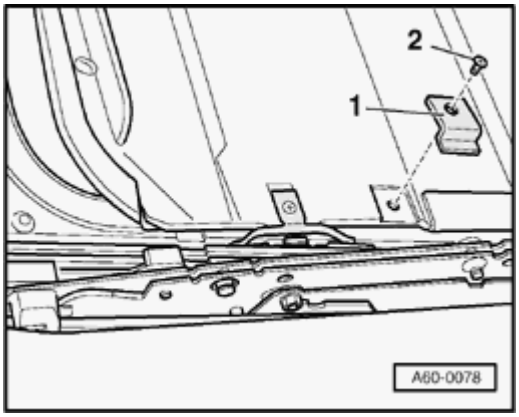


Fig. 154: Removing Bolt Of Spring Clip
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolt of spring clip - **1** -.
- In vehicles with solar sunroof, unscrew bolt and remove guide.

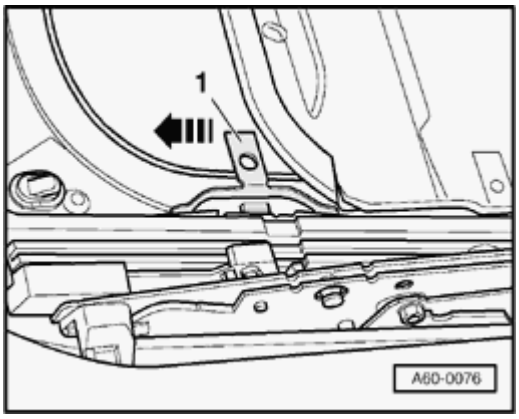


Fig. 155: Sliding Headliner Back Slightly And Remove Spring Clip Toward Front
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Slide headliner back slightly and remove spring clip - **1** - toward front.
- Slide out rear spring clip toward rear.
- Remove headliner upward.

Trim, removing and installing

Removing

- Tilt sunroof open
- Push sliding headliner fully back

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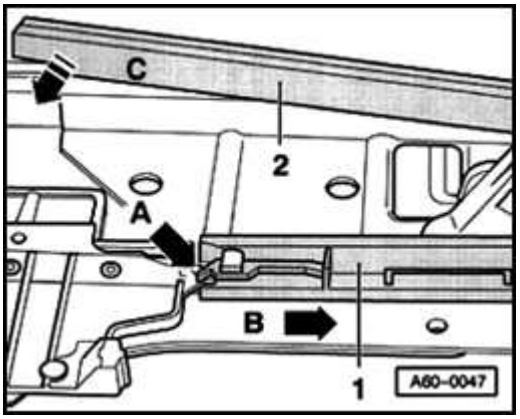


Fig. 156: Unclip Lower Panel At Rear From Locking Mechanism And Slide Toward Front
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Unclip lower panel -1- at rear in direction of arrow - **A** - from locking mechanism and slide toward front - **arrow B** -.
- Remove lower trim from guide track by pulling towards center of vehicle.
- Unclip front and center of trim - **2** - and remove in direction of arrow.

Installing

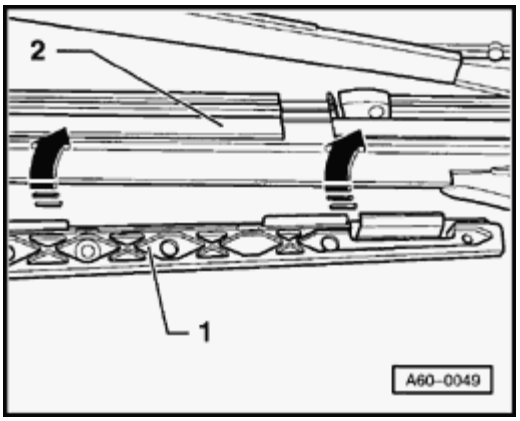


Fig. 157: Pressing On Lower Panel Onto Upper Edge Of Retaining Rail
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Press on lower panel - **1** - onto upper edge - **arrows** - of retaining rail - **2** -.

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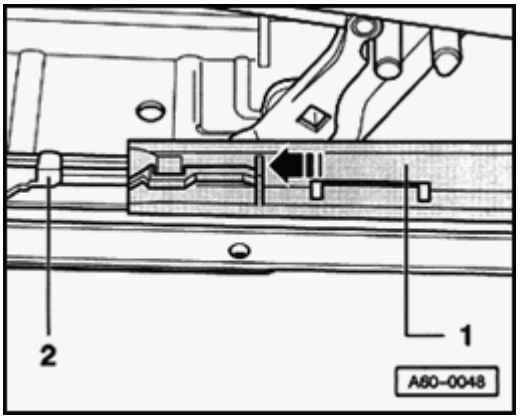


Fig. 158: Sliding Lower Panel Toward Rear Until Hook Catches In Coupling Plate
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Slide lower panel - **1** - toward rear in - **direction of arrow** - far enough until hook catches in coupling plate - **2** -.
- Press in upper trim in link guide.

Boot, removing and installing (vehicles as of CW 27/2002 >)

Removing

- Tilt sunroof open
- Slide sunroof headliner completely toward rear.

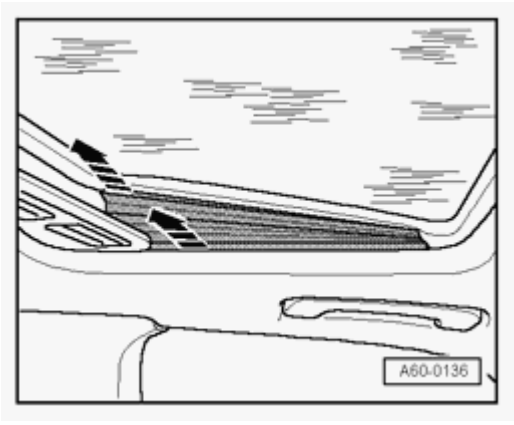


Fig. 159: Pulling Off Boot Starting At Top From Glass Sunroof Panel And From Frame
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull off boot starting at top from glass sunroof panel and from frame - **arrows** -.

Installing

Installation is the reverse of removal, noting the following:

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- Press on lower panel - **1** - onto upper edge - **arrows** - of retaining rail - **2** -.
- Press on lower panel - **1** - onto upper edge - **arrows** - of retaining rail - **2** -.

NOTE:

- **Make sure especially that boot is seated correctly in rear mounts on glass sunroof panel.**

Sunroof panel, removing

- Trims removed

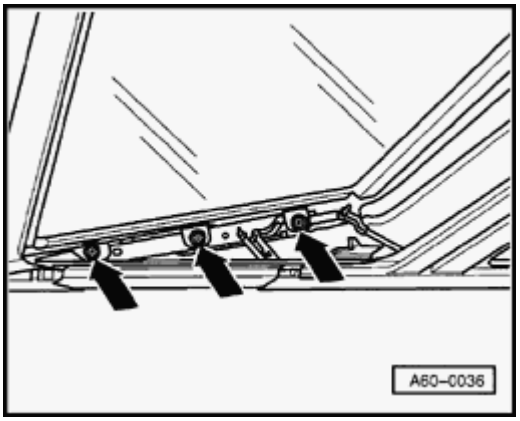


Fig. 160: Removing Torx Bolts (T 25) On Both Sides And Lift Panel Upward And Out
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove Torx bolts (T 25) - **arrows** - on both sides and lift panel upward and out.
- When installing, tightening torque 4.5) 0.5 Nm.

Sunroof panel, adjusting

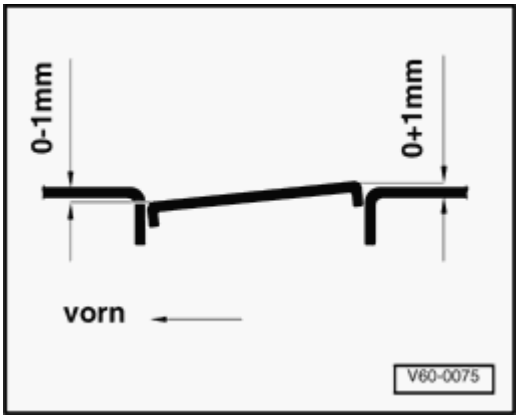


Fig. 161: Sunroof Panel, Adjusting
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Perform height adjustment at front and rear according to illustration to prevent wind noise.

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- Check height adjustment at each point, left and right, where rounded portion of roof cut-out merges with straight portion.
- Sunroof panel should not be higher than roof at any point at front or lower than roof at any point at rear.
- When adjusting sunroof panel height, start by running sunroof from open position (not tilted open) into closed position.

Panel seal, replacing

- Sunroof panel - **3** - removed.
- Remove panel seal - **2** - from sunroof panel - **3** -.

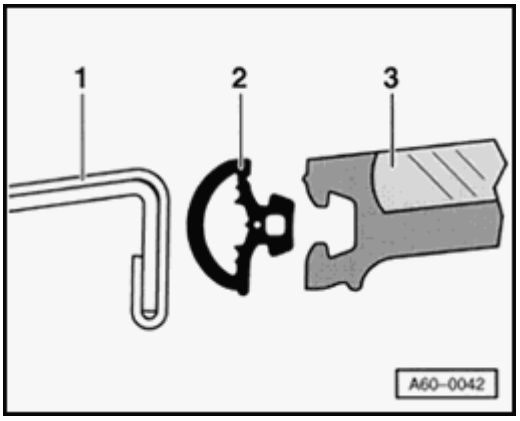


Fig. 162: Identifying Sunroof panel,
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Push new panel seal into sunroof panel - **3** - starting at rear of panel edge in center.

NOTE:

- **Coat edge of panel with soapy water to facilitate installation of seal.**

"Zero" position (link guide), adjusting

- Motor is removed, electrical harness connections connected.
- Move rotary control to "roof closed" position.
- Sunroof motor runs to "zero" position and cuts out automatically
- Install motor in this position with sunroof closed

"Zero" position of sunroof motor (link guide), checking and adjusting

Checking

Zero position can only be checked when sunroof panel is installed.

- Trims removed
- Slide sunroof back and into closed position.

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- On vehicles with glass panel, slide sliding headliner completely toward rear.
- In vehicles with solar panel, drive back sunroof panel.

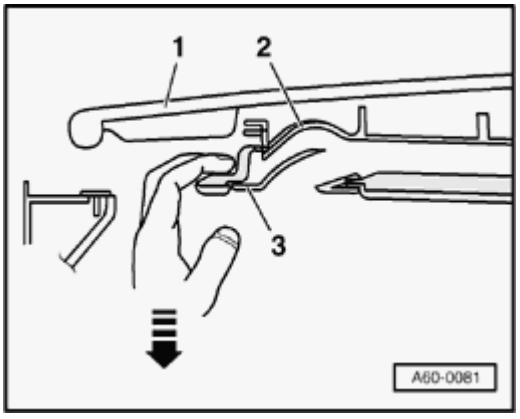


Fig. 163: Pulling Sunroof Headliner Slightly Toward Rear In And Sliding In Headliner Toward Rear
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull sunroof headliner slightly toward rear in - **direction of arrow** - and slide in headliner toward rear.
- Close sunroof.

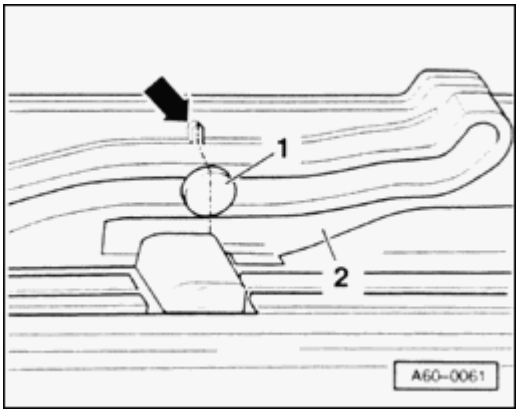


Fig. 164: Guiding Pins In Center On Tilting Mechanism Must Align With Marking On Link Guide
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- For a correct "zero" position, guide pins - **1** - in center on tilting mechanism must align with marking - **arrow** - on link guide - **2** -.
- In vehicles with solar panel, slide headliner with panel closed from rear toward front until it engages.

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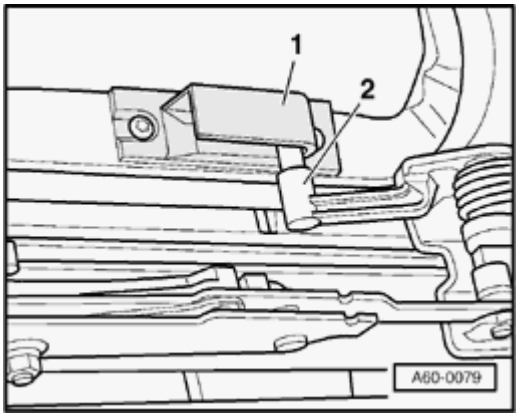


Fig. 165: Coupling Plate Must Be Slid Into Guide On Sunroof Headliner At Rear
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- When doing this, coupling plate must be slid into guide on sunroof headliner at rear.
- When sunroof is tilted open, headliner is also tilted open.

WATER DRAIN HOSES

Cleaning water drain hoses

NOTE:

- **For cleaning, it is recommended that you create your own assisting tool out of a speedometer inner cable, approx. 2300 mm (90.5 in.) long.**

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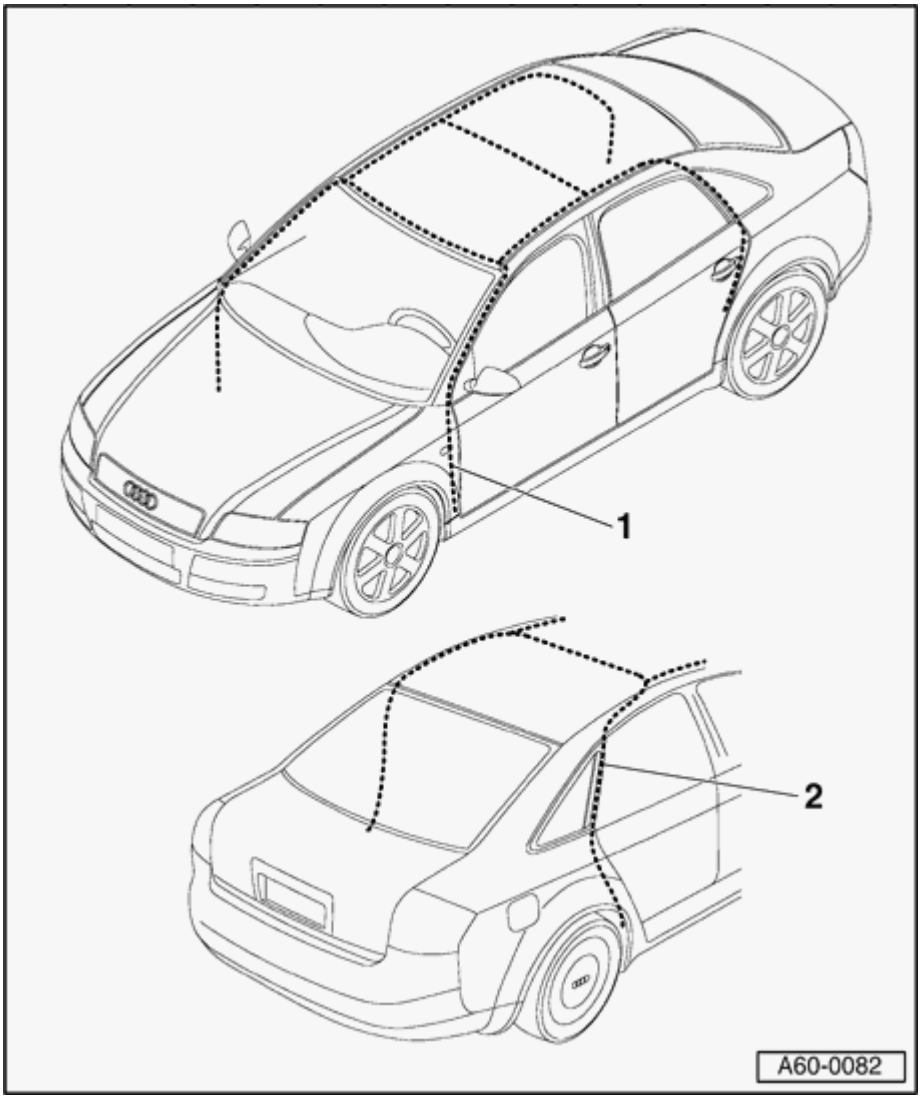


Fig. 166: Identifying Front/Rear Water Drain Hose
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Front water drain hose

- Front water drain hoses - **1** - are routed in A-pillar and end between door and A-pillar. Cleaning is performed at cut out for sunroof.

2 - Rear water drain hose

- Rear water drain hoses - **2** - are routed in C-pillars and end at sides behind bumper cover. Cleaning is performed from lower hose end. To do this, bumper cover must be removed --> **Bumper, removing and installing**.

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61 - CONVERTIBLE TOP

CONVERTIBLE TOP, SERVICING

Safety precautions

CAUTION: Observe measures when disconnecting battery -->

- **27 BATTERY, STARTER, GENERATOR, CRUISE CONTROL**
- **27 BATTERY, STARTER, GENERATOR, CRUISE CONTROL for ELECTRICAL EQUIPMENT, CABRIOLET**

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CAUTION: The convertible top hydraulic system loses pressure with ignition on 10 minutes after last use.

By pressing Convertible Top Operation Switch E137 briefly, the convertible top remains in respective position for another 10 minutes.

Secure convertible top mechanism against unintentional folding up and down during all installation work as this can lead to personal injury or vehicle damage.

Rivet connections, loosening

- Cover areas that are difficult to reach to protect against shavings.
- Drill out rivet head.
- Carefully drive out rivet head using a chisel.
- Drive rest of rivet out with a punch.

- Remove shavings, e.g. with a workshop vacuum.

NOTE:

- **Drill shavings lead to damage of convertible top parts and vehicle paint.**

Convertible top - assembly overview

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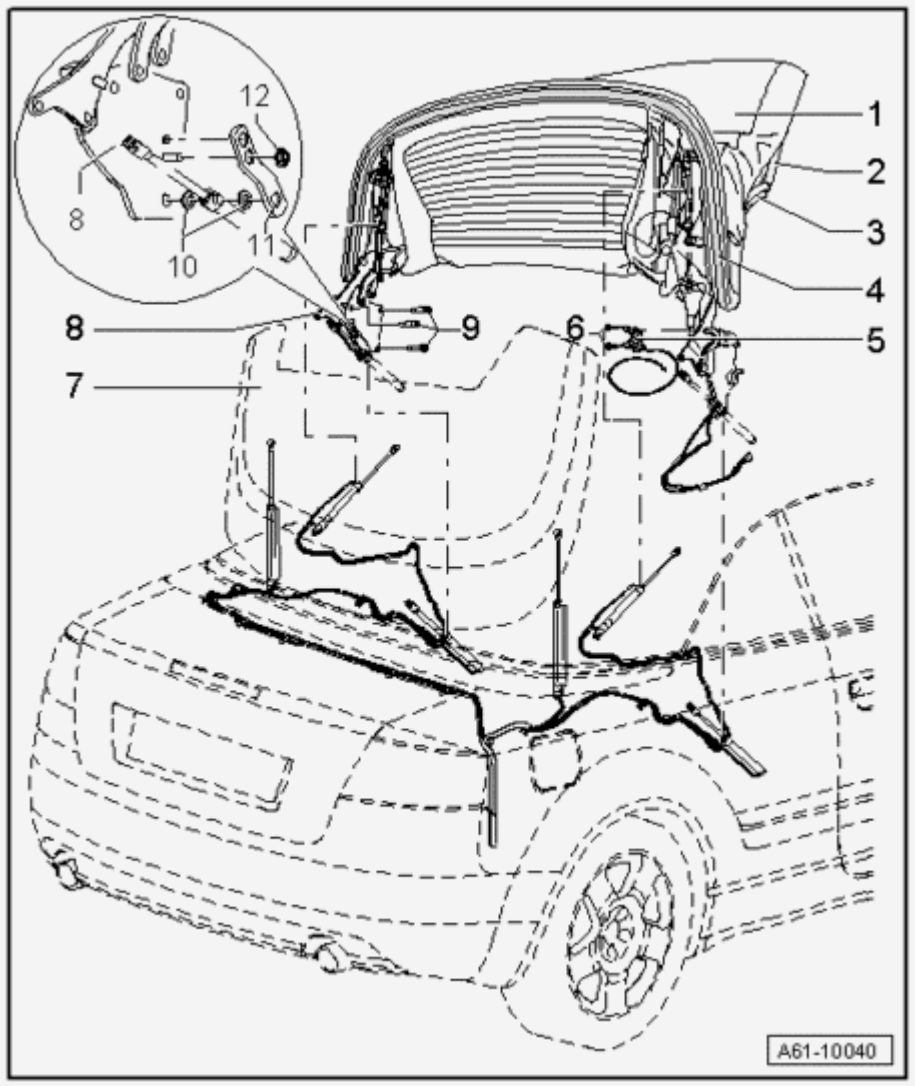


Fig. 115: Convertible Top - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Convertible top

- Removing --> **Convertible top, removing and installing**.

2 - Front roof frame seal

3 - Center roof frame seal

4 - Bracket/rear roof frame seal

- Removing --> **Convertible top frame seals - assembly overview**.

5 - Convertible top switch unit

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Consists of:

- Convertible Top Closed Position Switch F202 and
- Convertible Top Open Position Switch F171
- Removing --> **Convertible top position switch (Convertible Top Open Position Switch F171/Convertible Top Closed Position Switch F202), removing**.

6 - Bolts

- 21 Nm

7 - Convertible top compartment cover

8 - Main bracket

9 - Bolts

- 36 Nm

10 - Plastic washers

11 - Main hydraulic cylinder retaining bracket

12 - Nut

- 20 Nm

Convertible top compartment cover

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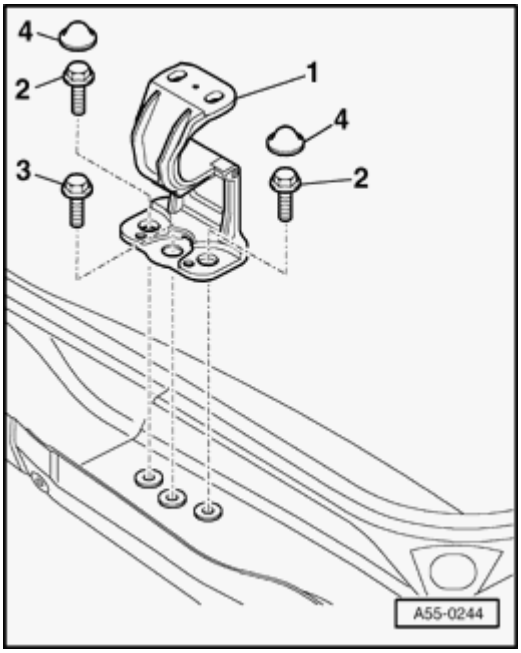


Fig. 116: Removing/Installing Bolts & Hinge
Courtesy of VOLKSWAGEN UNITED STATES, INC.

2 - 21 Nm

3 - 21 Nm

Convertible top, removing and installing

- The convertible top installation is described so that opening or removing the hydraulic system is not necessary.
- All assembly work is described for the right side of the vehicle and is performed the same or in a similar way on the left side.
- When installing, ensure convertible top moves easily when closing.
- When operating convertible top, ensure front and rear windows have lowered at least 50 mm.

Removing

- Remove rear side trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

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NOTE:

- **For easier removal of convertible top, remove convertible top compartment cover.**

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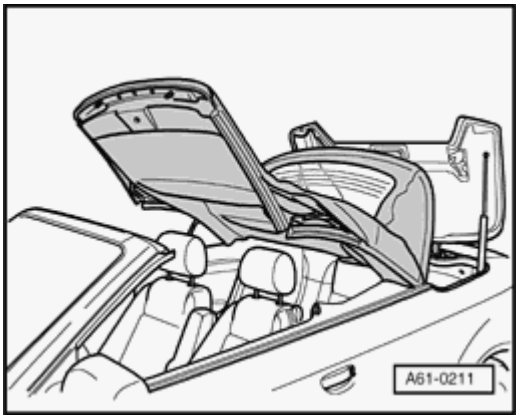


Fig. 117: Bringing Convertible Top Into Center Position
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Bring convertible top into center position.

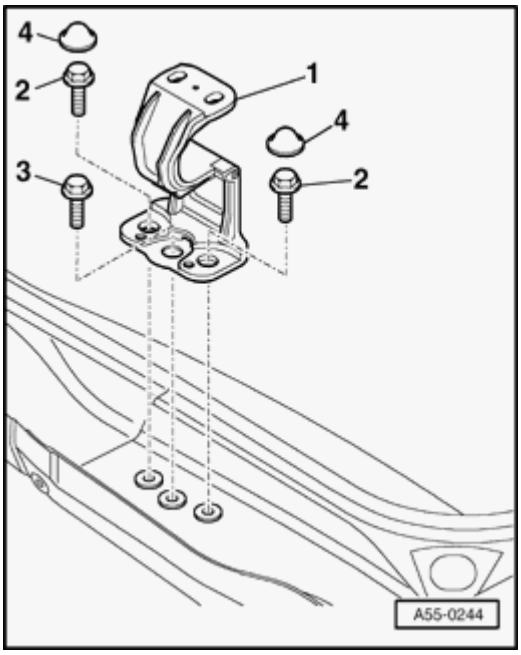


Fig. 118: Removing/Installing Bolts & Hinge
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Only remove bolts - **2** - on hinge - **1** -.

Bolt - **3** - must not be removed. That way, no installation work arises when installing convertible top compartment cover.

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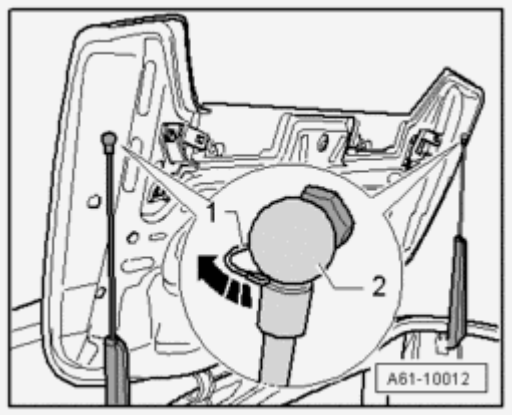


Fig. 119: Removing Ball Sockets And Placing Cylinder In Convertible Top Compartment
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Loosen lift cylinder securing springs - **1** - at top of convertible top compartment cover. Remove ball sockets - **2** - and place cylinder in convertible top compartment.
- Raise convertible top compartment cover.

CAUTION: Protect vehicle from paint damage by using suitable protective covers and fabric reinforced adhesive tape.

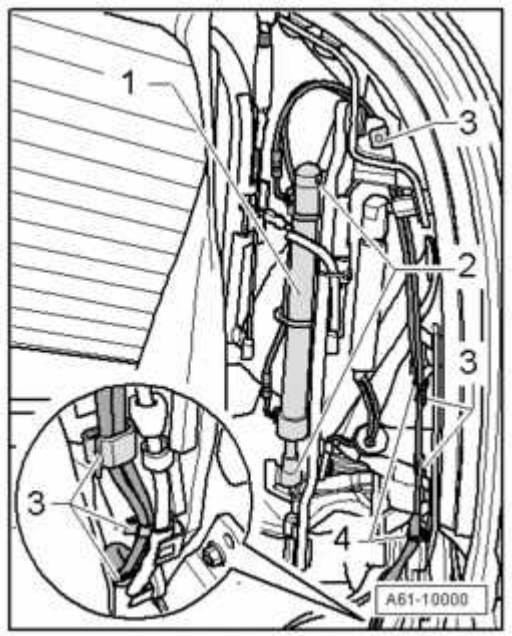


Fig. 120: Removing Hydraulic Lines And Cylinders From Convertible Top Frame
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Install bracket hydraulic cylinder - **1** - on ball sockets - **2** -.
- Unclip hydraulic lines from brackets - **3** - (Qty. 6) and loosen cable ties - **4** - (Qty. 2).
- Remove hydraulic lines and cylinders from convertible top frame and place them in convertible top

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compartment.

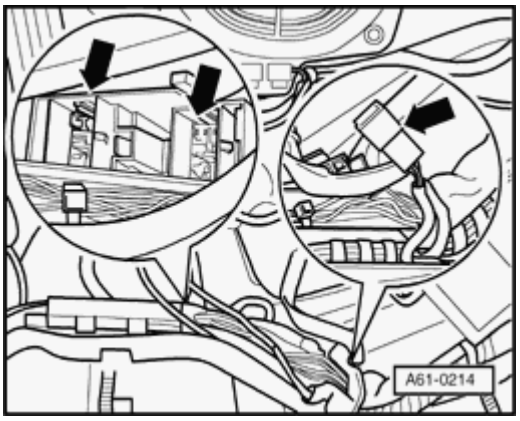


Fig. 121: Disconnecting Connectors At Right In Vehicle
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Disconnect connectors - **arrows** - at right in vehicle.
- Remove convertible top cable from guides and cable ties for body wall and convertible top frame.

NOTE:

- **All cable ties that are loosened or cut off when removing convertible top frame should be re-installed in the same places during installation.**

Right side of vehicle

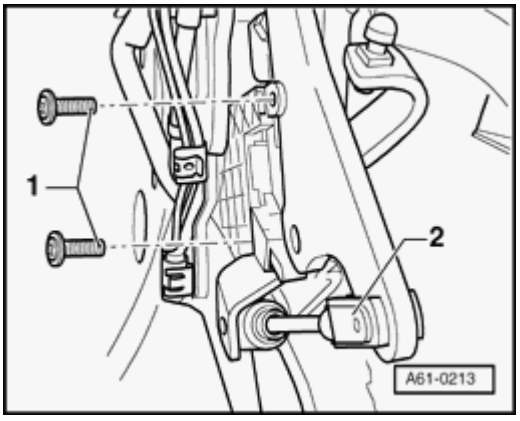


Fig. 122: Removing Convertible Top Switch Unit Bolts
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove convertible top switch unit bolts - **1** -. The switch unit consists of Convertible Top Closed Position Switch F202 and Convertible Top Open Position Switch F171.
- Carefully remove convertible top switch unit from bolting point mounts.

NOTE:

- **The convertible top should be brought to the appropriate position to remove respective convertible top switch unit bolt.**

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Continuation for both sides of vehicle

- Remove main hydraulic cylinder securing pins - **2** -.
- Loosen nuts on main hydraulic cylinder bracket until they are removed from the center and can be stored in the vehicle.

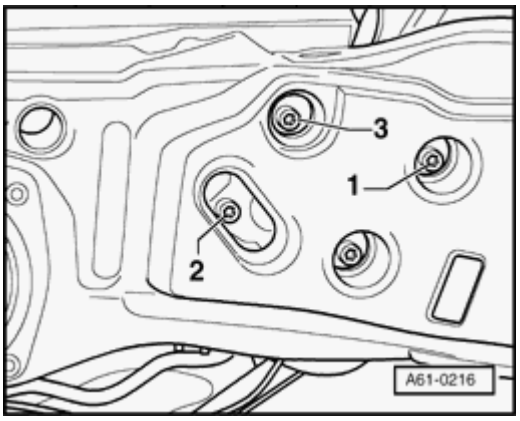


Fig. 123: Loosening Main Bracket Bolts
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Loosen main bracket bolts - **1** - , - **2** - and - **3** - approx. 2 turns.

- Two technicians must balance out the convertible top at the left and right.

- Remove bolts - **1** - and - **2** -.

- Bolt - **3** - remains as retainer in body wall.

- Raise convertible top approx. 20 cm and pull convertible top cable upward out of body.
- Raise convertible top toward rear over vehicle and out.

Installing

Installation is reverse of removal, noting the following:

- When inserting convertible top frame, ensure hydraulic lines and electrical wires are not damaged.
- When installing main hydraulic cylinder, ensure plastic washers are inserted in center of main hydraulic cylinder.
- Adjust door windows --> **Side windows, adjusting**.
- Adjust side window --> **Side windows, adjusting**.

- Perform function test.
- With convertible top closed, check whether front and rear windows run into seals when raised.

Convertible top lock, removing and installing

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- Front rail trim removed.

  - Mark position of convertible top lock on front rail.

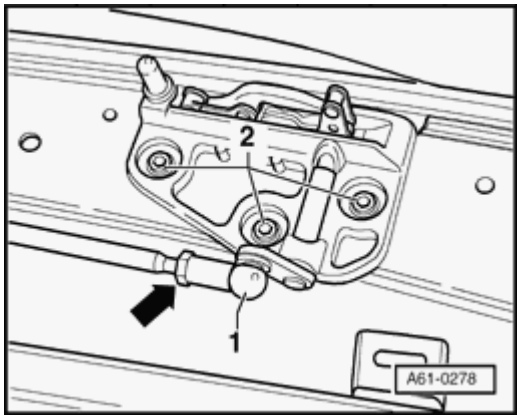


Fig. 124: Removing Wire Bracket Retainer, Pressing Push Rod Off Ball Stud & Removing Bolts And Convertible Top Lock
Courtesy of VOLKSWAGEN UNITED STATES, INC.

  - Remove wire bracket retainer and press push rod - **1** - off ball stud.
  - Remove bolts - **2** - and remove convertible top lock.

Installation is reverse of removal.

Tightening torque --> **Attachments - assembly overview**.

Convertible top locks, checking and adjusting

- Front rail trim and cowl panel trim removed.
- Close convertible top.

  - Check position of convertible top lock and anchor plate to one another.

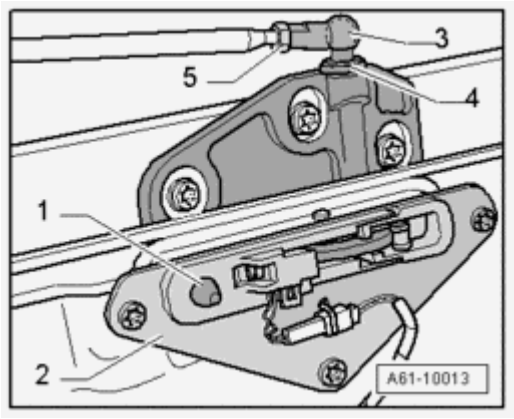


Fig. 125: Convertible Top Locks, Checking And Adjusting

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

Convertible top lock pins - 1 - must not contact anchor plate - 2 -.

- If necessary, adjust position of anchor plate - **2** -.
- Loosen wire bracket retainers and press both push rods - **3** - off ball studs.
- Check whether convertible top locks have reached their end position by pressing firmly on ball studs - **4** - in closing direction.

The push rods - **3** - must be able to be placed on the ball studs - **4** - in this position.

Convertible top locks and linkages, adjusting

- Push rods - **3** - removed from ball studs - **4** - on both sides.

- Loosen Convertible Top Locking Motor V223 bolts approximately one turn.
- On right side of vehicle, place push rod - **3** - on ball stud - **4** -.
- Tighten Convertible Top Locking Motor V223 bolts.
- Loosen lock nut - **5** - on left side of vehicle and adjust ball stud by screwing threads in or out.

- Adjust ball stud - **3** - so that it can be placed on ball stud - **4** -.
- Tighten lock nut in this position.

Tightening torques --> **Attachments - assembly overview**.

Side windows, adjusting

Special tools, testers and auxiliary items required

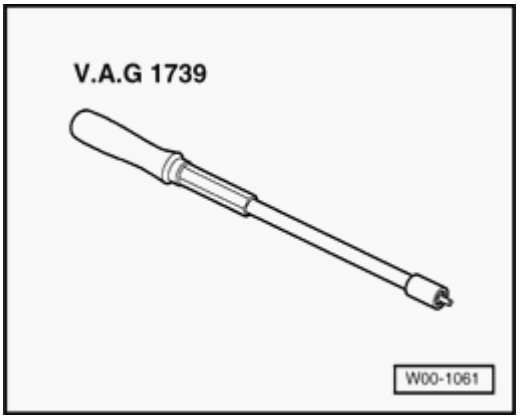


Fig. 126: Side Window Installation Tool V.A.G 1739
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Side Window Installation Tool V.A.G 1739

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- Remove side panel trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .
- Remove front door trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .

NOTE:

- **The adjustment steps are described on the rear windows as an example and can be done the same way on the door windows.**

Angle, adjusting

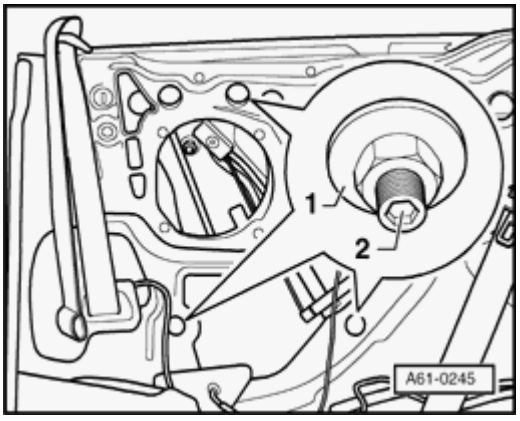


Fig. 127: Angle, Adjusting
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Using Side Window Installation Tool V.A.G 1739 , loosen lock nuts - **1** - on adjusting collar screws.
- Adjust angle of inclination by turning hex socket - **2** -.
- Tighten lock nut.

Longitudinal angle and closing height, adjusting

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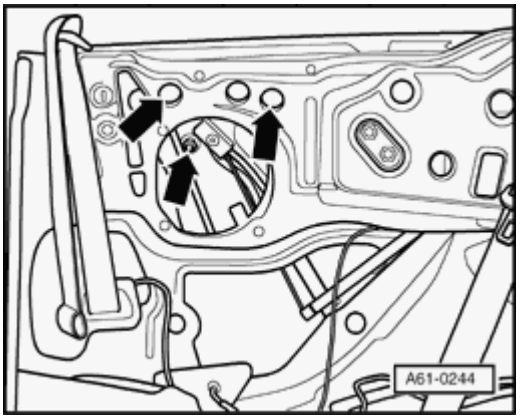


Fig. 128: Longitudinal Angle And Closing Height, Adjusting
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Loosen bolts - **arrows** -.
- Slide side window into convertible top seal groove.
- Tighten screws.

Adjustment, checking

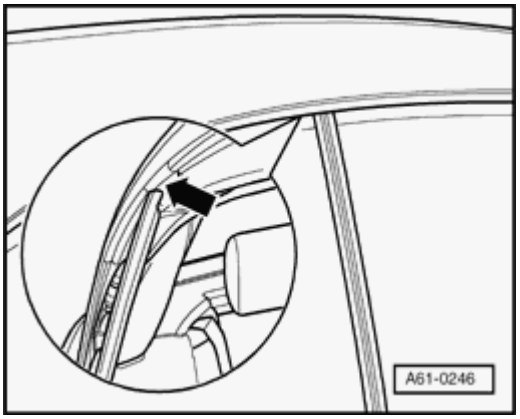


Fig. 129: Adjustment, Checking
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- With convertible top closed, check whether front and rear windows run into seals when raised - **arrow** -.

Tightening torques --> **Rear window regulator - assembly overview**.

Convertible top frame seals - assembly overview

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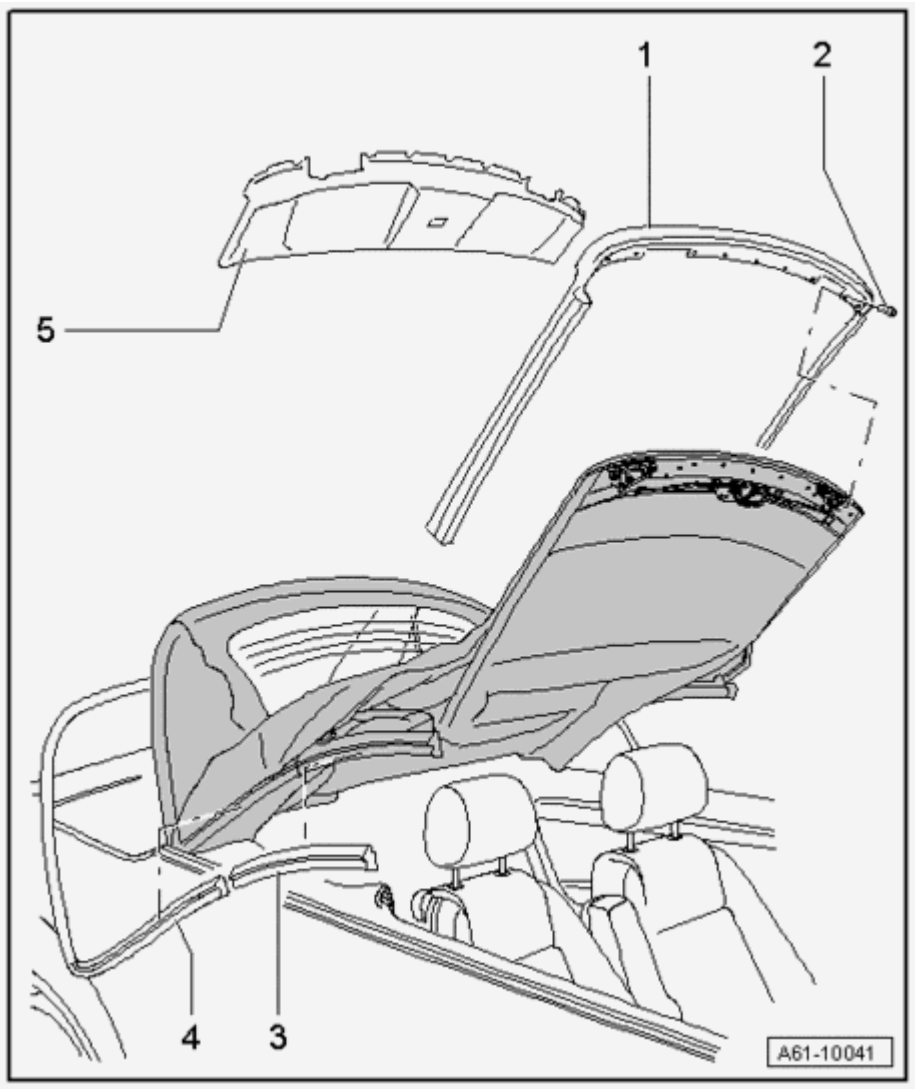


Fig. 130: Convertible Top Frame Seals - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Front roof frame seal

- Removing and installing --> **Front roof frame seal, removing and installing**.

2 - Screw

- 5.2 Nm

3 - Center roof frame seal

- Removing and installing --> **Rear bracket/roof frame seal or center roof frame seal, removing and installing**.

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4 - Bracket/rear roof frame seal

- Removing and installing --> **Rear bracket/roof frame seal or center roof frame seal, removing and installing**.

5 - Front rail trim

- Removing and installing --> **Front rail trim, removing and installing**.

Front roof frame seal, removing and installing

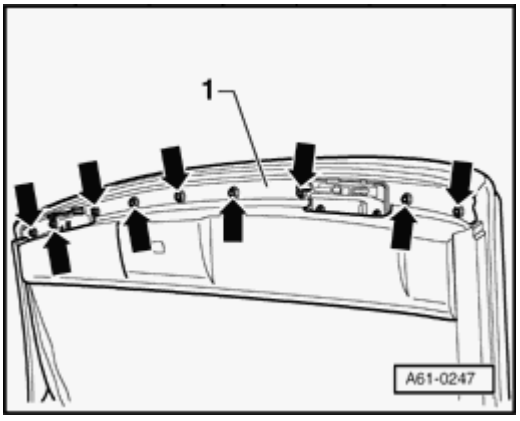


Fig. 131: Front Roof Frame Seal Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts - **arrows** -.
- Remove seal sideways out of seal carrier.
- Remove retaining strip with seal.

Installation is reverse of removal.

Tightening torque --> **Convertible top frame seals - assembly overview**.

Rear bracket/roof frame seal or center roof frame seal, removing and installing

- To remove, open convertible top until center roof frame seal and rear roof frame seat do not touch at rear edges.

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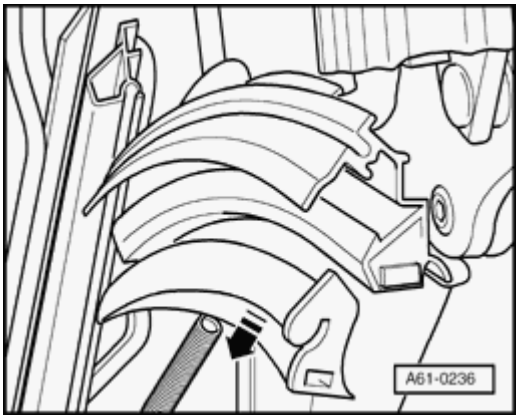


Fig. 132: Removing Seal From Retaining Track
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove seal from retaining track in - **direction of arrow** -.

NOTE:

- **When installing, ensure seal is positioned exactly in sealing profile.**
- **Center roof frame seal, rear roof frame seal and bracket seal are removed in the same way.**

Front rail trim, removing and installing

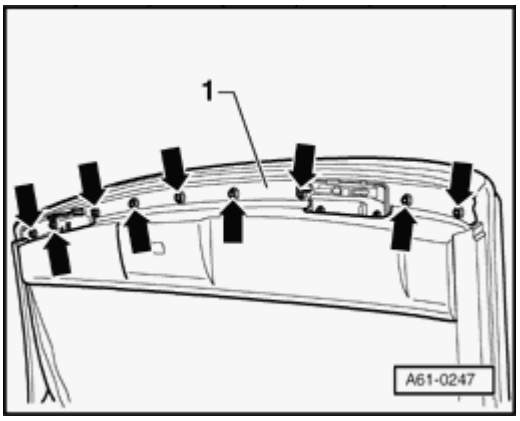


Fig. 133: Front Rail Trim Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts - **arrows** -.
- Carefully remove trim.

Installation is reverse of removal.

Tightening torque --> **Convertible top frame seals - assembly overview**.

Convertible top - parts designations

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NOTE:

- **These parts designations are used in the description for removal and installation of convertible top headliner, convertible top cover and convertible top upholstery.**

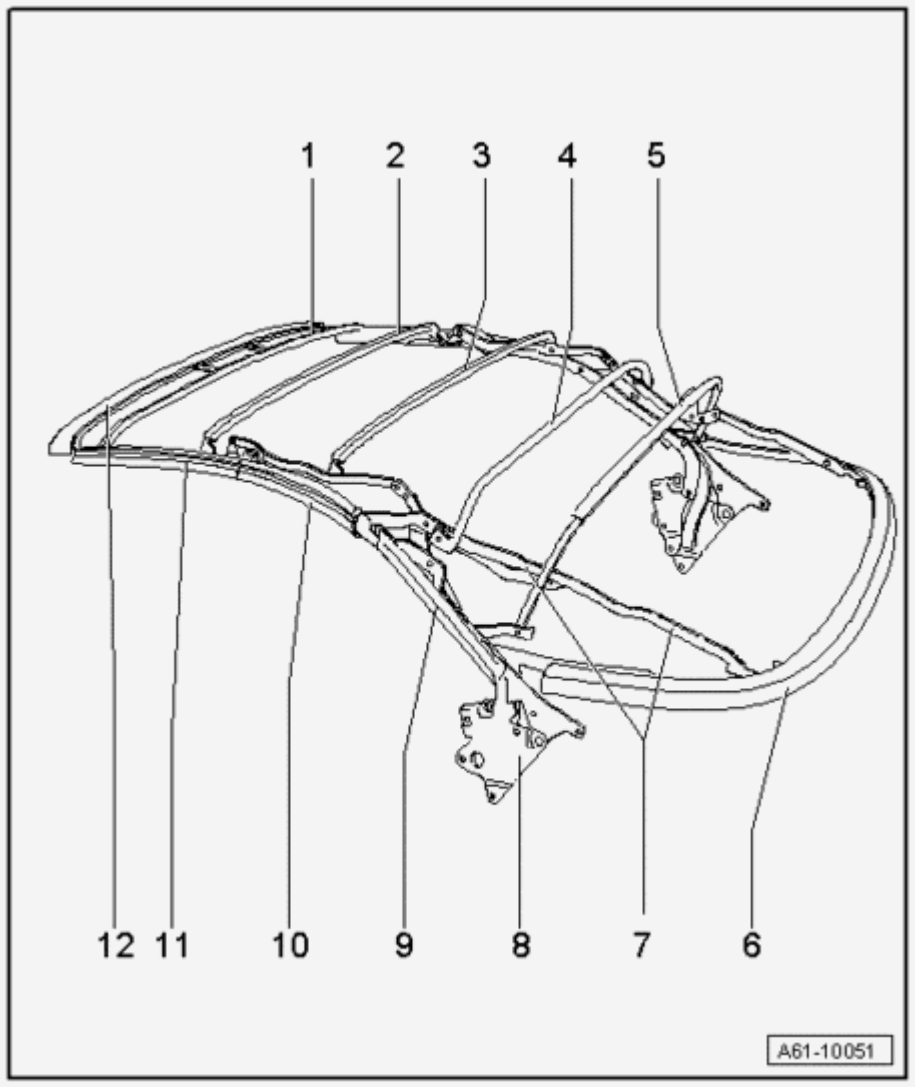


Fig. 134: Convertible Top - Parts Designations
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Rail "1"

2 - Rail "2"

3 - Rail "3"

4 - Rail "4"

5 - Rail "5"

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6 - Bracket

7 - Center brace

8 - Main bracket

9 - Main guide

10 - Roof guide "2"

11 - Roof guide "1"

12 - Front rail

Convertible top headliner - assembly overview

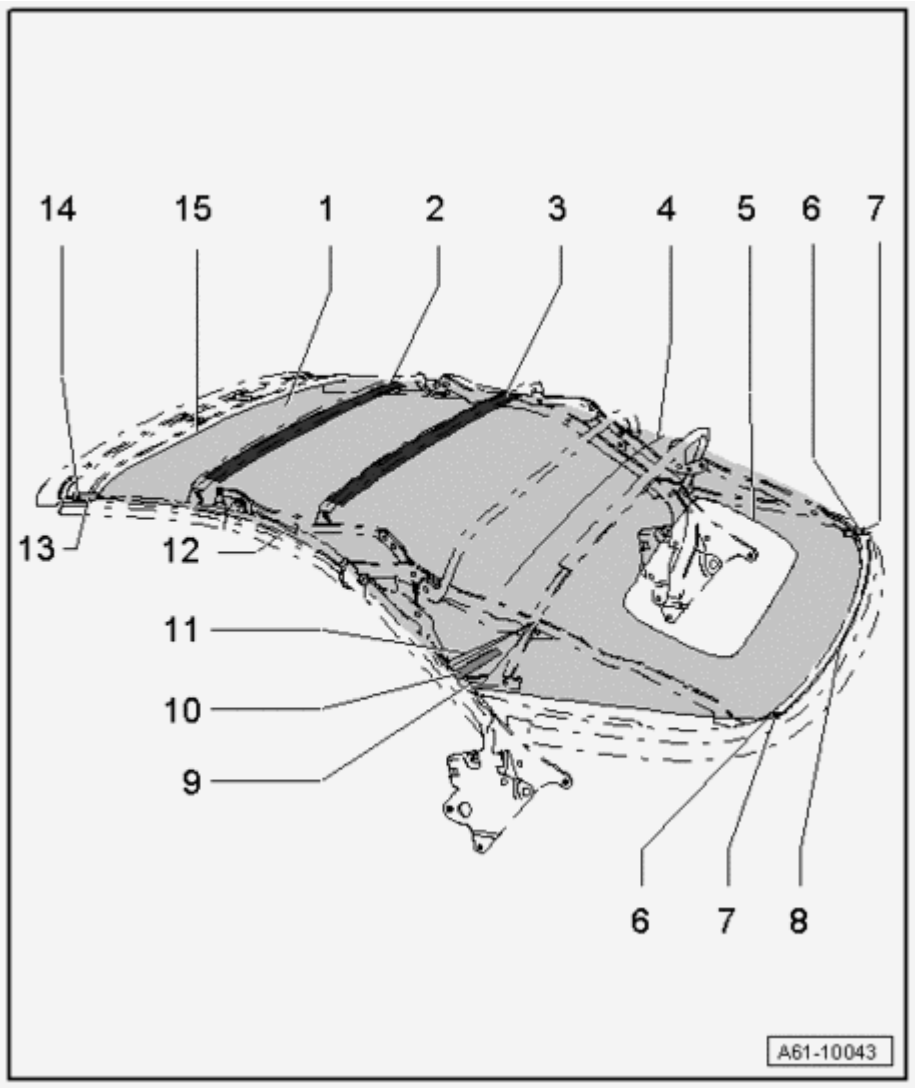


Fig. 135: Convertible Top Headliner - Assembly Overview

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Convertible top headliner

2 - Plastic profile

3 - Plastic profile

4 - Zip fastener

5 - Rear window frame

6 - Tab

7 - Rivet

8 - Plastic profile

9 - Tensioning band 3

10 - Strap

11 - Tensioning band 2

12 - Tensioning band 1

13 - Tab

14 - Screw

15 - Securing profile

Convertible top headliner, removing and installing

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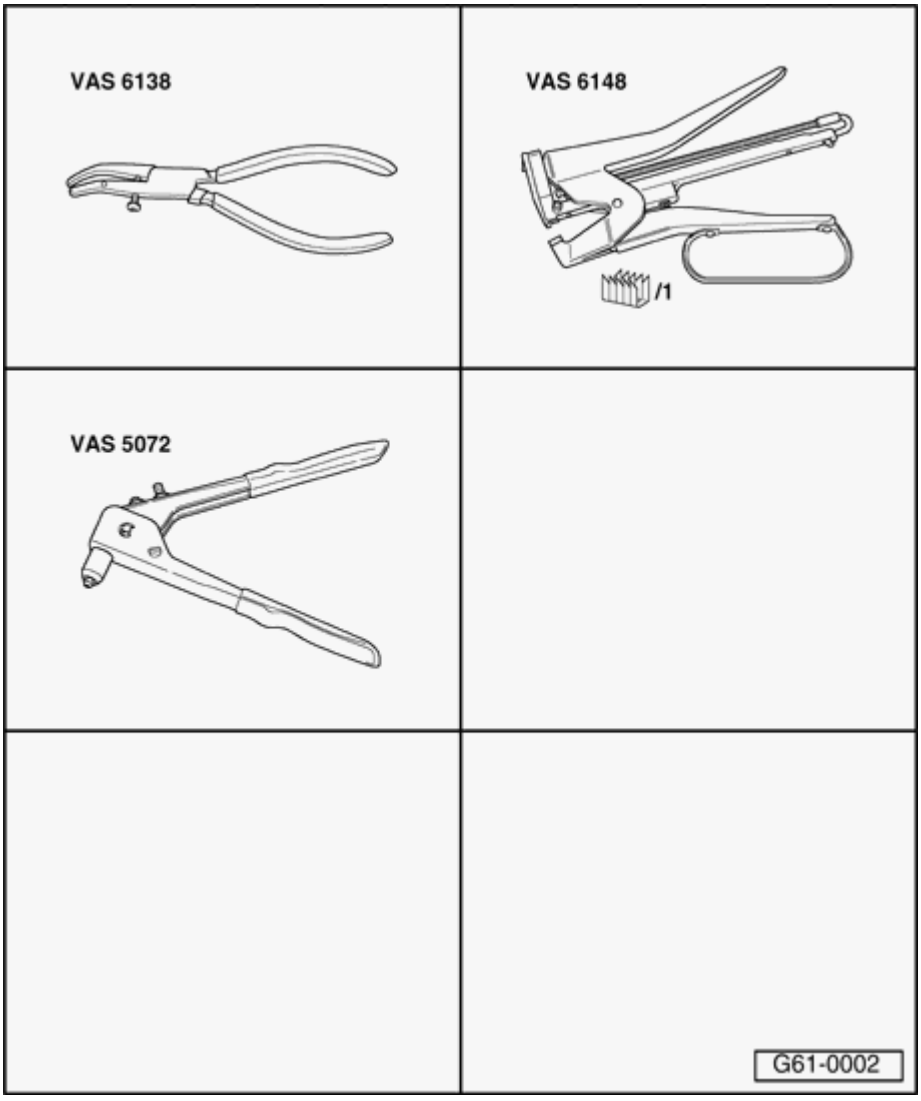


Fig. 136: Identifying Special Tools - Convertible Top Headliner, Removing And Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Special tools, testers and auxiliary items required

- Closing Pliers VAS 6138
- Staple Gun VAS 6148 with Replacement Staples F/VAS6148 VAS 6148/1
- Pop rivet pliers VAS 5072

Removing

NOTE:

- **Convertible top, parts designations --> Convertible top - parts designations**

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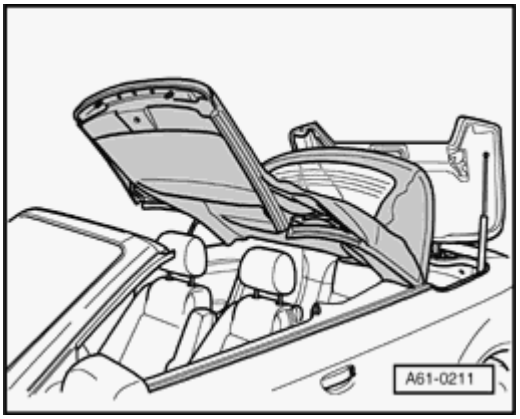


Fig. 137: Bringing Convertible Top Into Center Position
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Bring convertible top into center position.

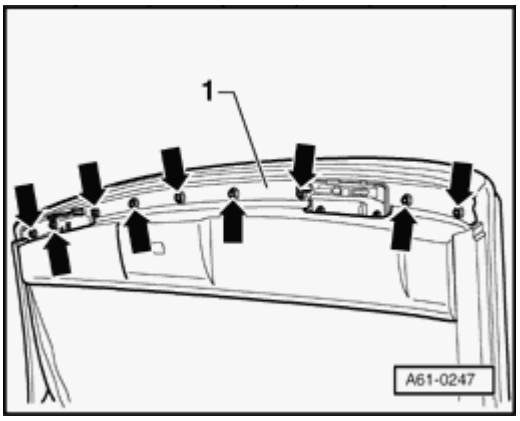
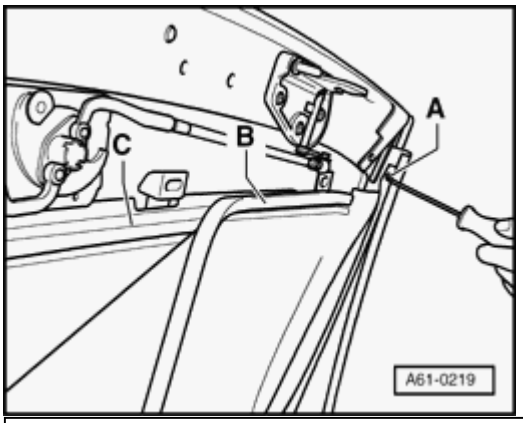


Fig. 138: Removing Bolts & Retaining Strip With Seal
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts - **arrows** -.
- Remove seal sideways out of seal carrier.
- Remove retaining strip - **1** - with seal.



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Fig. 139: Removing Bolt & Securing Profile From Rail
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolt - **A** -.
- Remove securing profile - **B** - from rail - **C** -.

NOTE:

- **The tensioning cable and front strap on convertible top are fastened together with bolt - A -.**

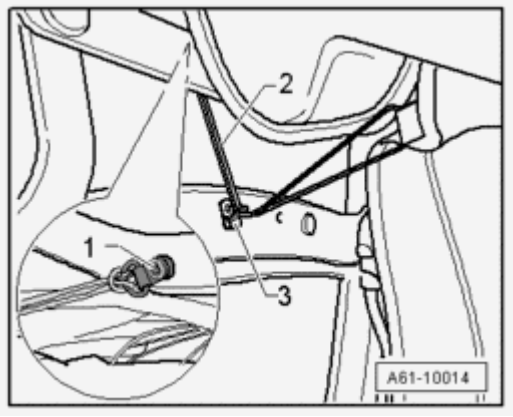


Fig. 140: Removing Rivet From Eyelet & Rubber Cable From Eyelet On Inner Side Of Roof Guide
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove rivet - **1** - from eyelet.
- Remove rubber cable - **2** - from eyelet - **3** - on inner side of roof guide "2".

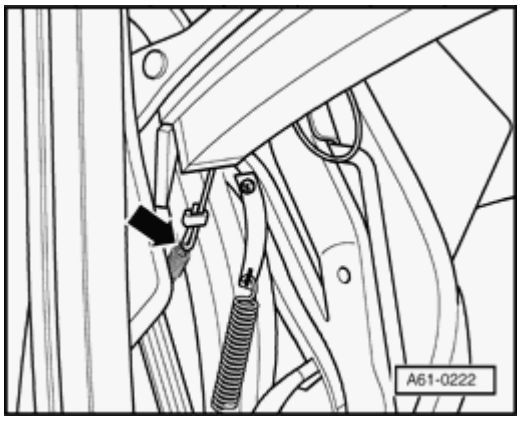


Fig. 141: Disengaging Tensioning Cable From Spring And Pulling Through Eyelet On Rear End Of Roof Guide And Forward
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Disengage tensioning cable from spring - **arrow** - and pull through eyelet on rear end of roof guide and forward.

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NOTE:

- **The spring is visible at the rear end of the roof guide "2" when the convertible top is brought into center position.**

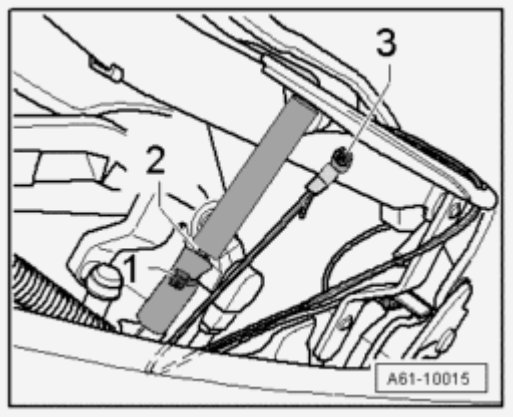


Fig. 142: Identifying Cable Tie, Tensioning Cable & Rivet
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Loosen cable tie - **1** -.
- Fold hose back and disengage tensioning cable - **2** -.
- Remove rivet - **3** -.
- Remove tensioning bands from sealing element bushings on convertible top frame.

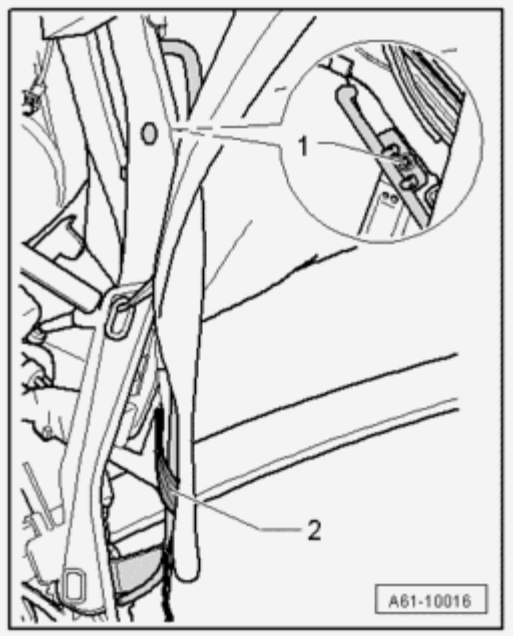


Fig. 143: Loosening Guide Bracket Upper Bolted Connection And Disengage Strap
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Loosen guide bracket upper bolted connection - **1** - and disengage strap - **2** -.

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Fig. 144: Removing Convertible Top Headliner Plastic Strips From Roof Rail
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove convertible top headliner plastic strips from roof rail "2" and "3".

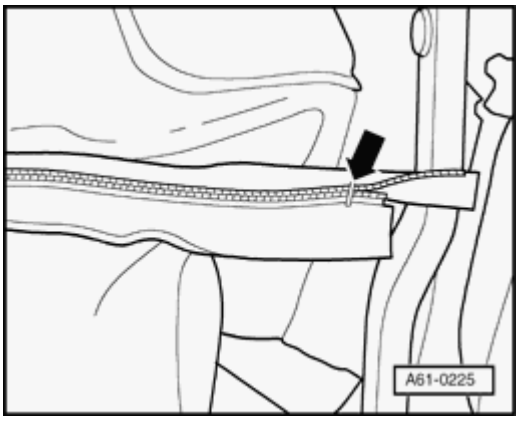


Fig. 145: Clamping Replacement Staples VAS 6148/1 Onto Ends Of Zip Fasteners
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Clamp Replacement Staples VAS 6148/1 onto ends of zip fasteners - **arrow** -.
- Pull zip fasteners apart.

NOTE:

- **Ensure zip fastener is not damaged.**

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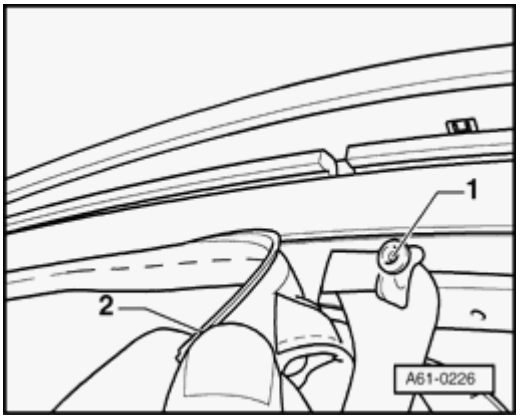


Fig. 146: Drilling Convertible Top Headliner Tab Rivet On Bracket & Removing Convertible Top Headliner Securing Strip From Groove In Bracket
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Drill convertible top headliner tab rivet - **1** - on bracket.
- Remove convertible top headliner securing strip - **2** - from groove in bracket.
- Remove convertible top headliner from rear window guide frame. Ensure no clips remain in rear window guide frame.

NOTE:

- **Replace faulty clips.**

Installing

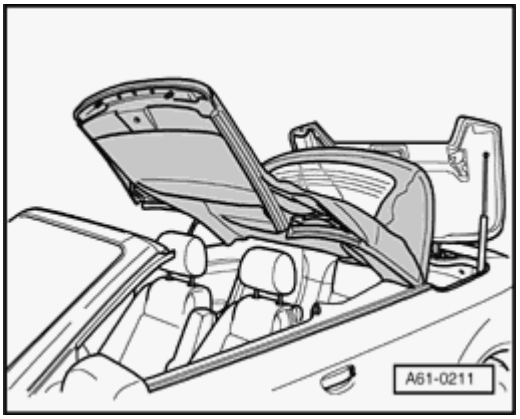


Fig. 147: Bringing Convertible Top Into Center Position
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Bring convertible top into center position.

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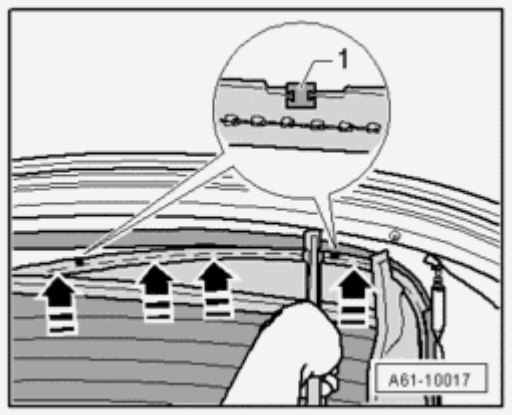


Fig. 148: Checking Whether Clips Are Located Completely In Convertible Top Headliner Frame
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Check whether clips - **1** - are located completely in convertible top headliner frame.
- Press convertible top headliner frame into rear window frame with wide pliers.

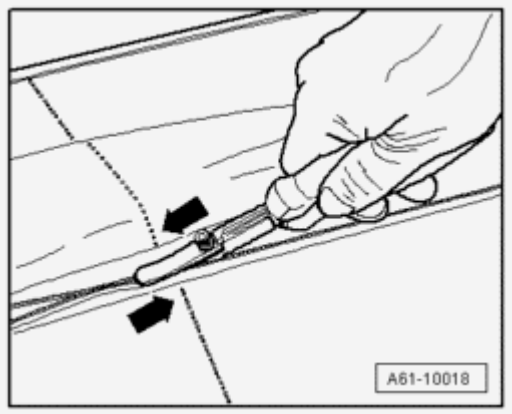


Fig. 149: Ensuring Center Markings Align
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- When closing zip fastener, ensure center markings - **arrows** - align.

The remaining convertible top headliner installation is done in reverse order.

NOTE:

- **Ensure all convertible top components are positioned and function properly.**
- **Perform function test.**

Tightening torques --> **Convertible top headliner - assembly overview** or --> **Attachments - assembly overview**.

Convertible top cover - assembly overview

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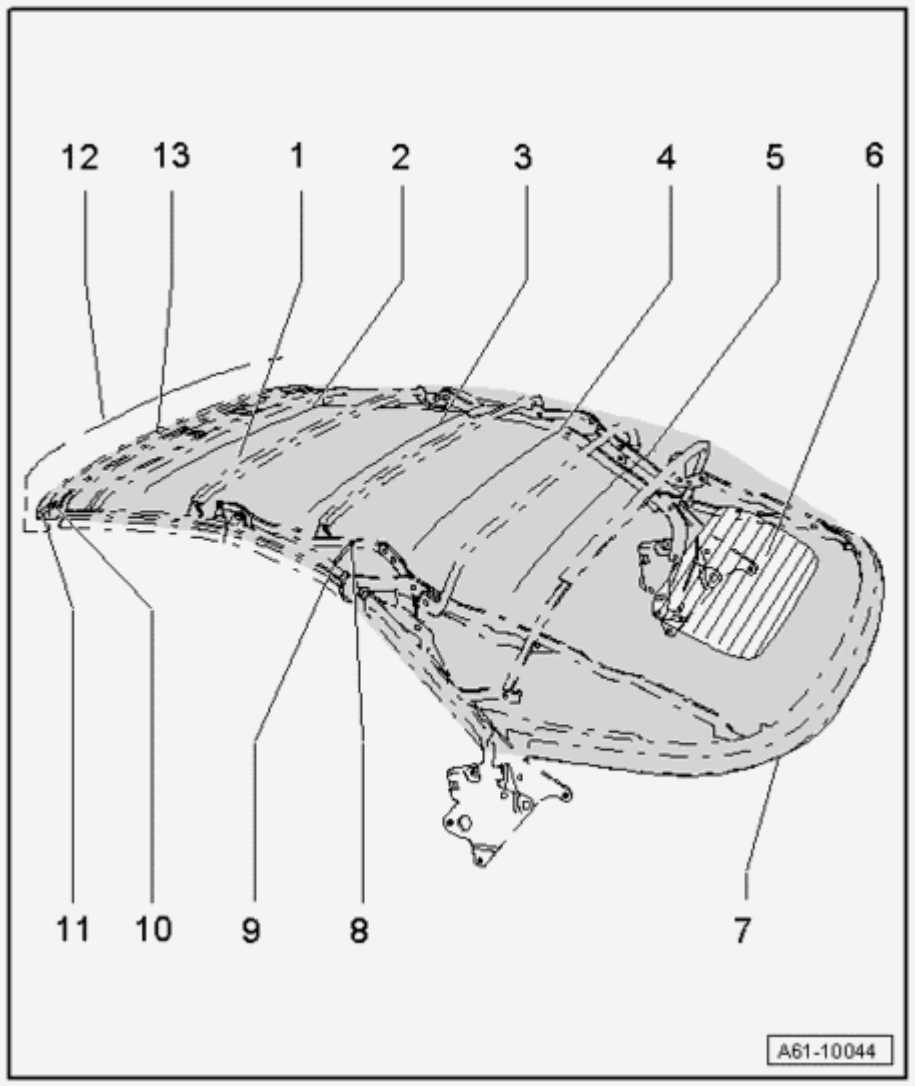


Fig. 150: Convertible Top Cover - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Convertible top cover

2 - Zip fastener

3 - Zip fastener

4 - Zip fastener

5 - Zip fastener

6 - Rear window

7 - Plastic profile

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8 - Rivet

9 - Tensioning strap

10 - Screw

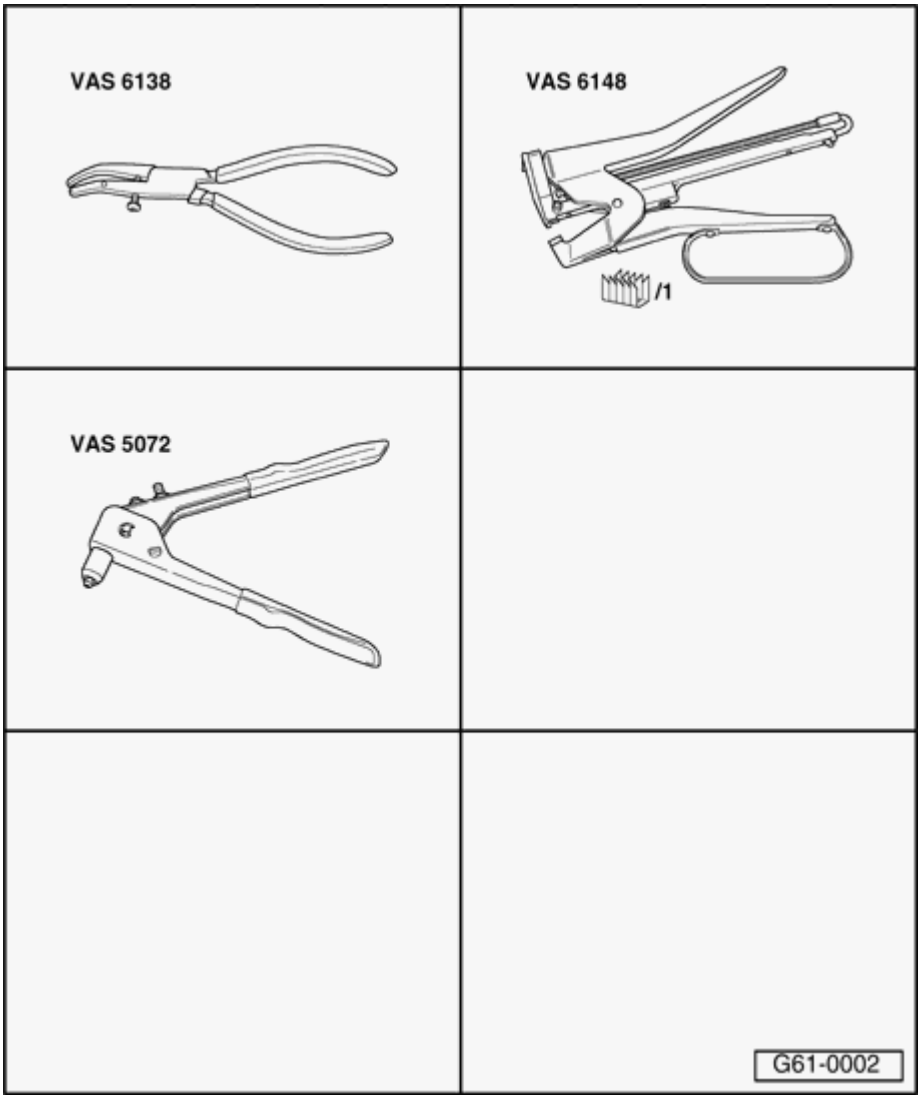
11 - Tab

12 - Molding

- 3-part

13 - Plastic profile

Convertible top cover, removing and installing



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Fig. 151: Identifying Special Tools - Convertible Top Cover, Removing And Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Special tools, testers and auxiliary items required

- Closing Pliers VAS 6138
- Staple Gun VAS 6148 with Replacement Staples F/VAS6148 VAS 6148/1
- Pop rivet pliers VAS 5072

Removing

NOTE:

- **Convertible top, parts designations --> Convertible top - parts designations**

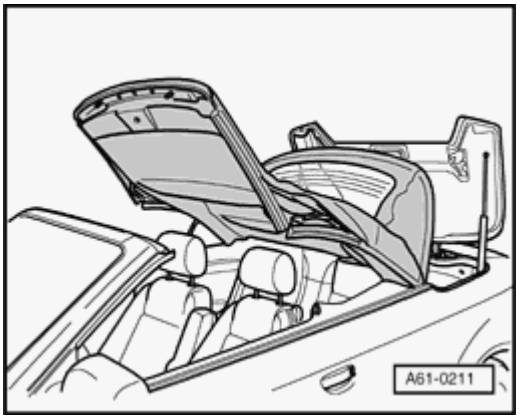


Fig. 152: Bringing Convertible Top Into Center Position
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Bring convertible top into center position.

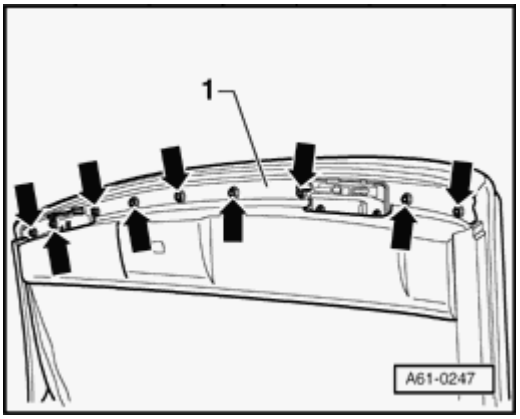


Fig. 153: Removing Bolts For Seal Retaining Strip From Front Rail
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts - **arrows** - for seal retaining strip - **1** - from front rail.

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- Carefully remove front rail trim.

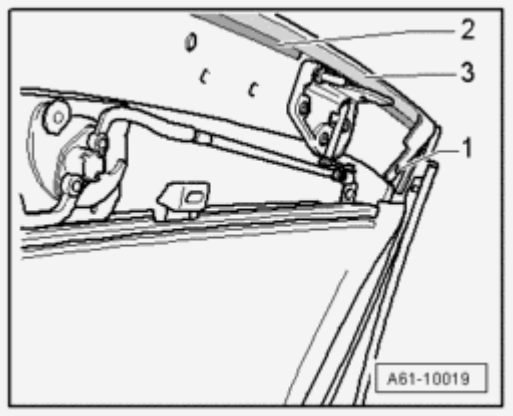


Fig. 154: Removing Convertible Top Headliner Straps On Front Rail
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove convertible top headliner straps - **1** - on front rail.
- Remove molding band - **2** - and convertible top cover - **3** - from front rail groove.

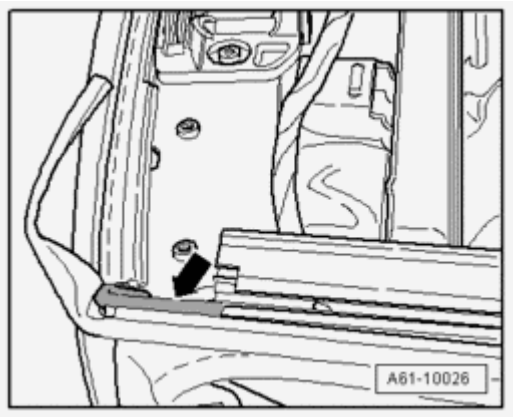


Fig. 155: Removing Sealant On Front Corners Or Front Rail
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove sealant - **arrow** - on front corners or front rail.
- Remove convertible top sideways from convertible top frame.

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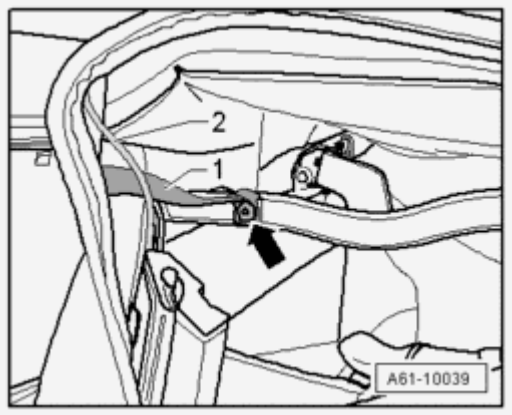


Fig. 156: Removing Tensioning Strap On Roof Guide Between Rail And Rail
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove tensioning strap - **1** - on roof guide between rail - **3** - and rail - **4** -.

NOTE:

- **When installing, ensure tensioning cable - 2 - is not pinched.**

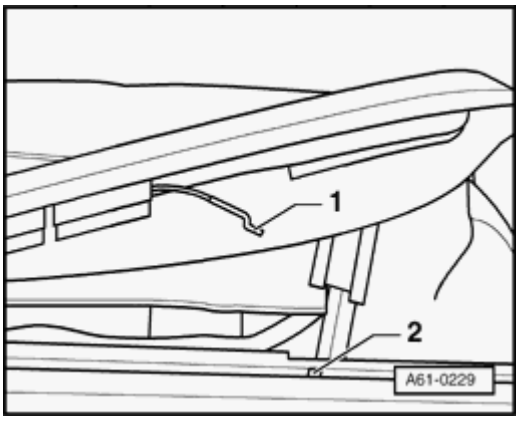


Fig. 157: Removing Tensioning Cable From Mounting Hole In Roof Guide
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove tensioning cable - **1** - from mounting hole - **2** - in roof guide - **1** -.
- Pull tensioning cable back out of convertible top cover canvas pockets.

NOTE:

- **Use a suitable welding wire when pulling in tensioning cable.**

- Fold back convertible top cover.

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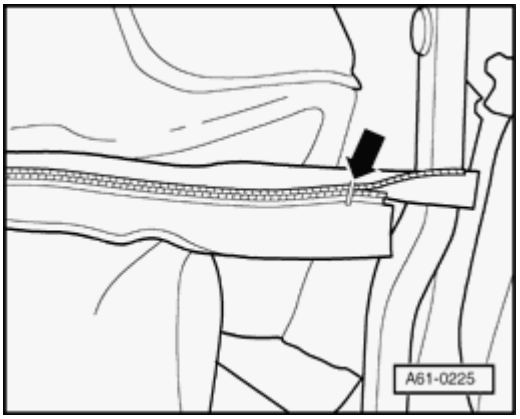


Fig. 158: Clamping Replacement Staples VAS 6148/1 Onto Ends Of Zip Fasteners
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Clamp Replacement Staples VAS 6148/1 onto ends of zip fasteners - **arrow** -.

NOTE:

- **When installing, mark the convertible top cushion where the corresponding center line on the underside of the convertible top cover meets with the cushion. This will ensure exact centering of the top cover during installation**

- Pull zip fasteners apart (Qty. 4).

NOTE:

- **Ensure zip fastener is not damaged.**

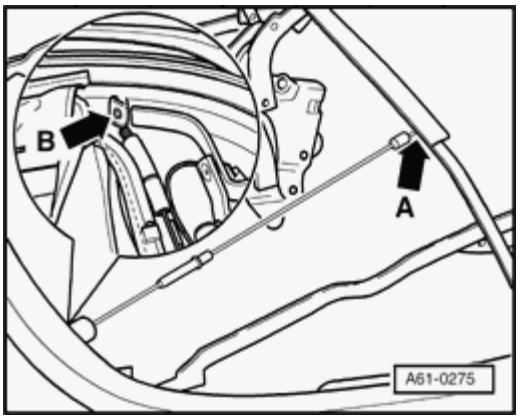


Fig. 159: Folding Bracket In Vertical Position (Convertible Top In Center Position) And Removing Bolt
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Fold bracket in vertical position (convertible top in center position) and remove bolt - **arrow B** -.

NOTE:

- **To provide a better explanation, the adjoining illustration shows the convertible top frame without convertible top headliner, convertible top cover and convertible top upholstery to.**

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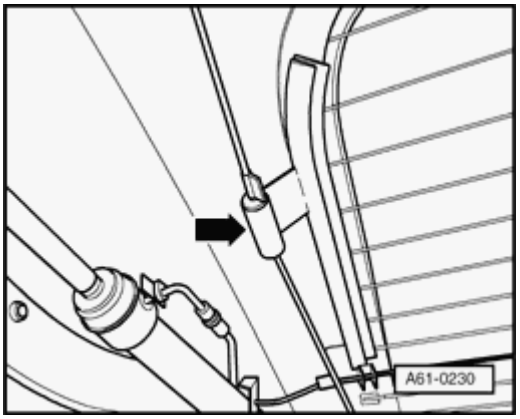


Fig. 160: Removing Washer On Rear Window Cable Guide
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove washer on rear window cable guide and pull cable out of its guide - **arrow** -.

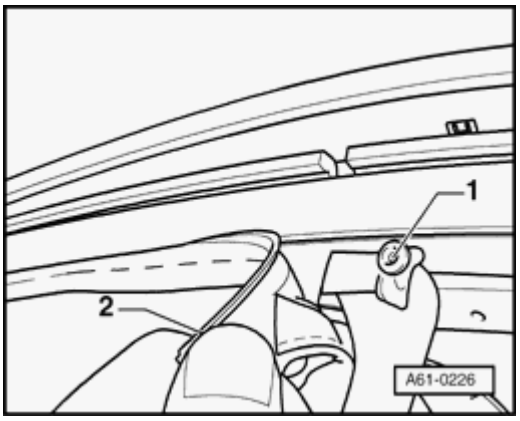


Fig. 161: Drilling Convertible Top Headliner Tab Rivet On Bracket & Removing Convertible Top Headliner Securing Strip From Groove In Bracket
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Drill convertible top headliner tab rivet - **1** - on bracket.
- Remove convertible top headliner securing strip - **2** - from groove in bracket.
- Remove convertible top headliner from rear window guide frame. Ensure no clips remain in rear window guide frame.

NOTE:

- **Replace faulty clips.**
- **The convertible top headliner is now separated from the convertible top cover (rear window frame).**

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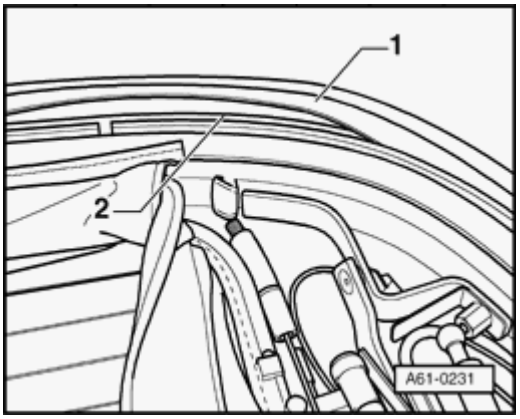


Fig. 162: Removing Plastic Profile From Bracket Groove
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove plastic profile - **1** - from bracket groove - **2** -.

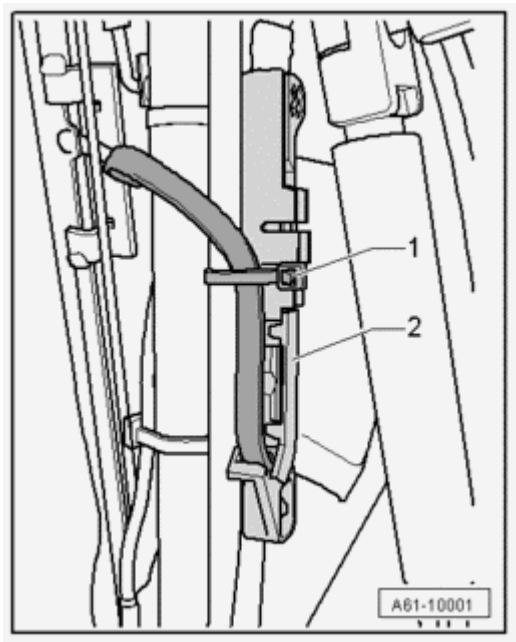


Fig. 163: Cutting Cable Tie & Opening Housing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Cut cable tie - **1** -.
- Open housing - **2** - and disconnect rear window defroster electrical connectors.
- Remove convertible top frame on main guide downward.

Installing

Installation of the convertible top cover is the reverse of removal.

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NOTE:

- **Ensure all convertible top components are positioned and function properly.**
- **Perform function test.**

Convertible top upholstery - assembly overview

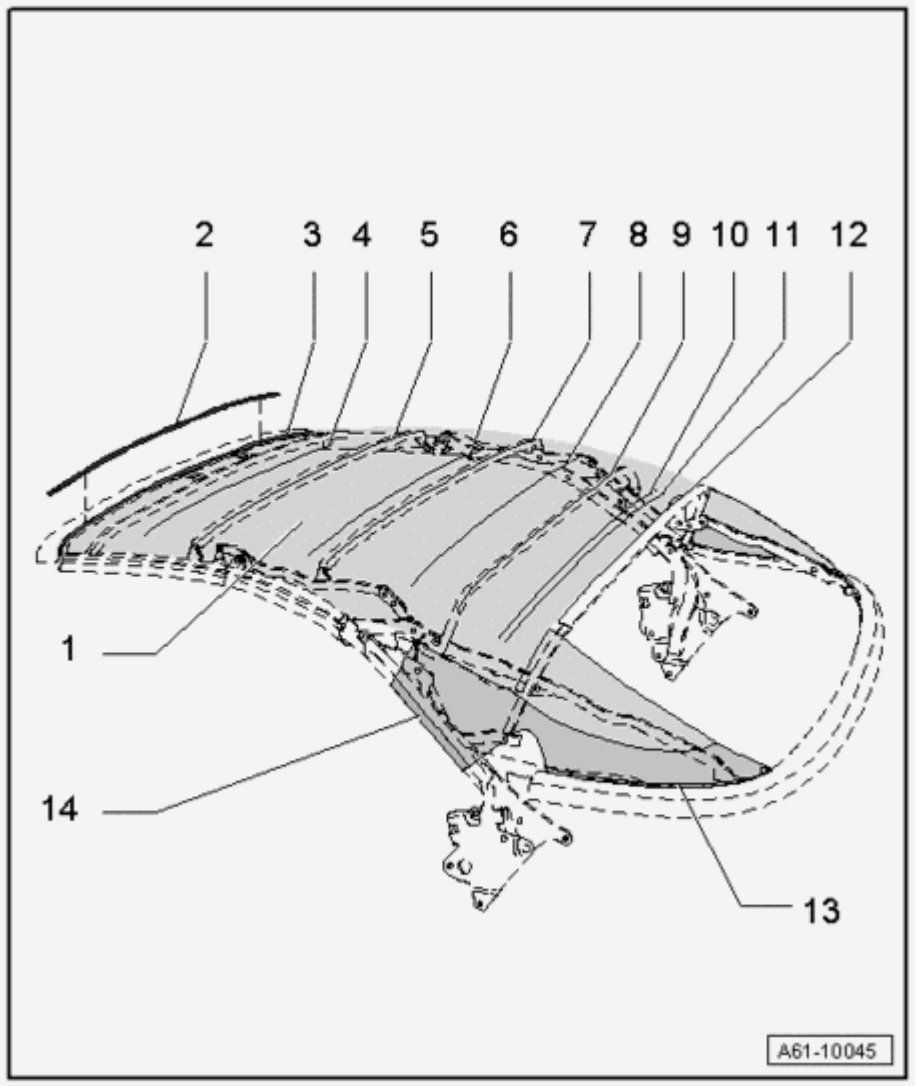


Fig. 164: Convertible Top Upholstery - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Convertible top upholstery

2 - Molding

3 - Profile strip

4 - Zip fastener

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- Outside

5 - Round molding

6 - Zip fastener

- Outside

7 - Round molding

8 - Zip fastener

- Outside

9 - Round molding

10 - Zip fastener

- Outside

11 - Zip fastener

- Inner

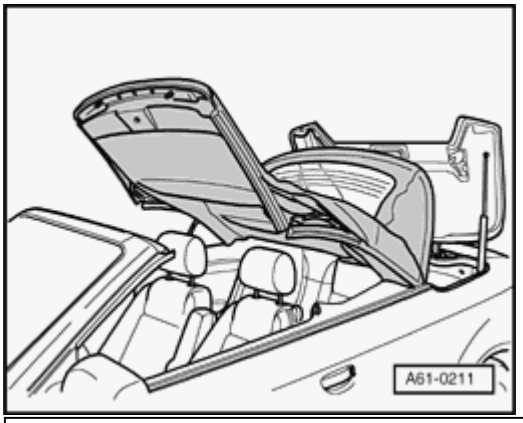
12 - Round molding

13 - Round molding

14 - Adhesive surface

- Double-sided tape can be used several times.
- Use *Double-Sided Adhesive Tape 434 019 25* if damaged.

Convertible top upholstery, removing and installing



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Fig. 165: Bringing Convertible Top Into Center Position
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Removing

NOTE:

- **Convertible top, parts designations --> Convertible top - parts designations**

- Remove convertible top headliner --> **Convertible top headliner, removing and installing**.
- Remove convertible top cover --> **Convertible top - parts designations**.
- Bring convertible top into center position.

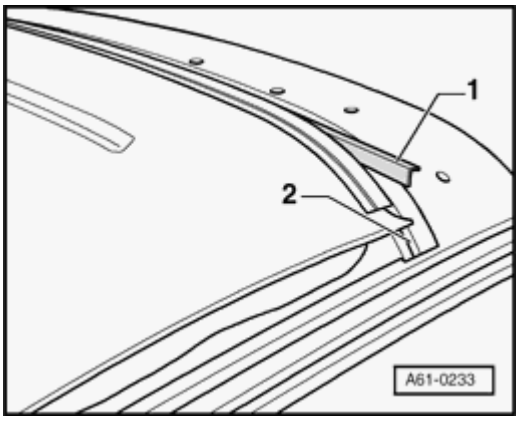


Fig. 166: Removing Molding Band And Convertible Top Upholstery From Front Rail Groove
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove molding band - **1** - and remove convertible top upholstery from front rail groove - **2** -.

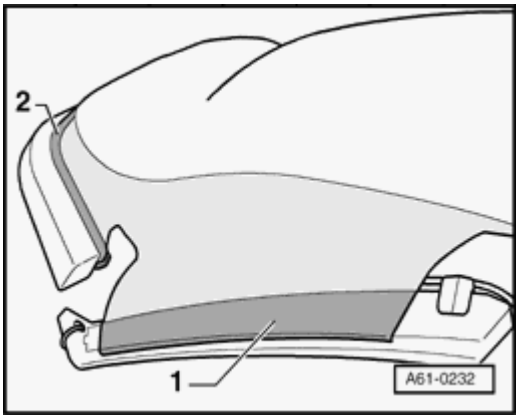


Fig. 167: Removing Convertible Top Upholstery From Adhesive Tape On Main Guide
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove convertible top upholstery from adhesive tape on main guide - **1** -.

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NOTE:

- **The double-sided tape can be reused if in good condition.**

- Remove bolt from back end of convertible top upholstery in bracket.
- Slide convertible top upholstery forward out of bracket upper groove - **2** -.
- Pull convertible top upholstery to side and out of rails.

Installing

Installation of the convertible top upholstery is the reverse of removal.

NOTE:

- **Ensure all convertible top components are positioned and function properly.**
- **Perform function test.**

Inner headliner, servicing

Inner headliner strap with hose B6C 003 05D

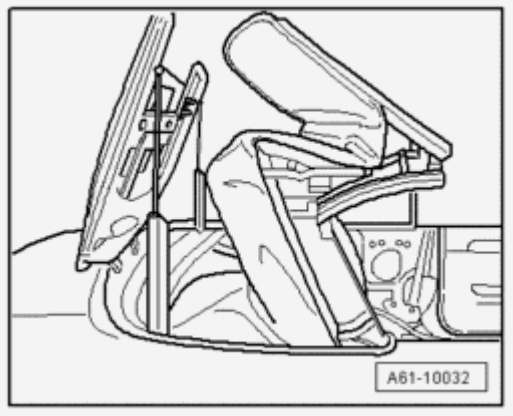


Fig. 168: Bringing Convertible Top Into Position
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Bring convertible top into position shown.

CAUTION: The convertible top hydraulic system is depressurized after 10 minutes.

- **Risk of injury from lowering convertible top.**

NOTE:

- **To prevent convertible top from lowering, press convertible top switch, secure top against lowering if necessary.**

- For better accessibility, completely lower side windows.

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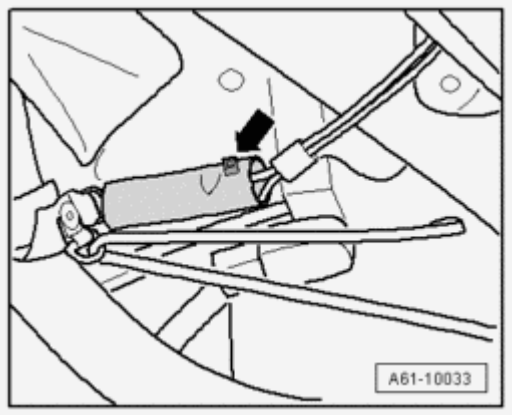


Fig. 169: Removing Cable Ties On Jacketed Pull-Spring
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove cable ties - **arrow** - on jacketed pull-spring.

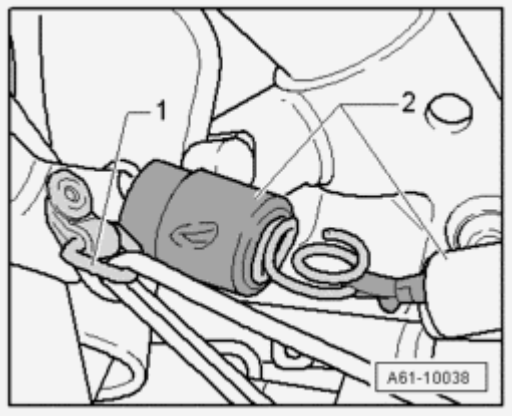


Fig. 170: Checking Diverting Eyelet For Damage Or Deformation & Folding Sheathing Back And Disengage Headliner Cord At Pull-Spring
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Check diverting eyelet - **1** - for damage or deformation.
- If necessary, replace both diverting eyes.
- Fold sheathing - **2** - back and disengage headliner cord at pull-spring.

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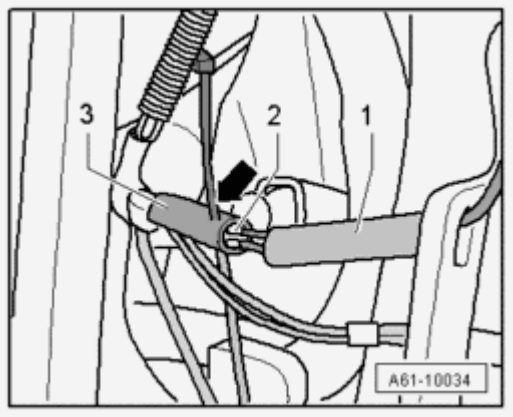


Fig. 171: Identifying Rubber Hose, Sheathing & Over Pull-Spring
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Guide headliner cord through rubber hose - **1** - and re-engage it at pull-spring - **2** -.
- Slide sheathing - **3** - over pull-spring - **2** -.
- Guide a cable tie through slit - **arrow** - present on sheathing - **3** - and tighten it.
- Close convertible top until bracket is vertical (on stop) and convertible top compartment cover is closed.

NOTE:

- **Cover convertible top compartment cover and side panel to protect against paint damage.**

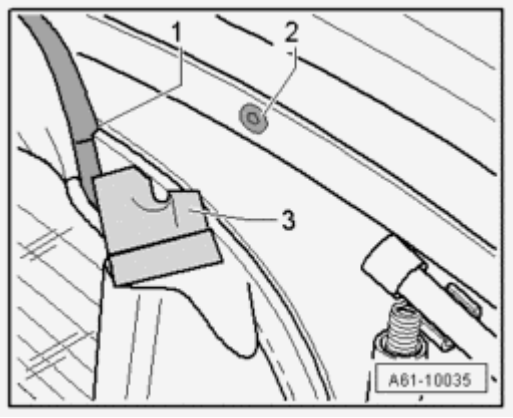


Fig. 172: Identifying Molding, Rivet & Sewn Seam
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove molding - **1** - from bracket.
- Remove rivet - **2** -.
- Separate sewn seam - **3** - on torn off mounting strap and remove "old strap".

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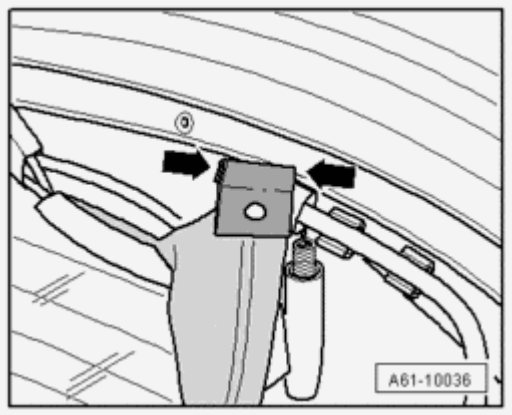


Fig. 173: Laying Mounting Strap From Repair Kit Flush On Convertible Top Headliner
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Lay mounting strap from repair kit flush on convertible top headliner - **arrows** - and sew with a double seam.

NOTE:

- **Before sewing, ensure strap is positioned correctly on headliner to avoid a twisted seam.**

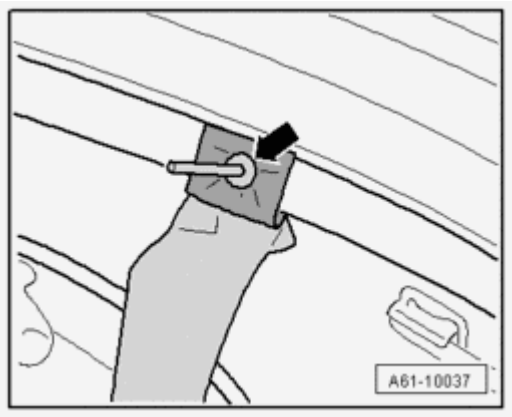


Fig. 174: Securing Strap To Convertible Top Frame With Accompanying Rivet
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Secure strap to convertible top frame with accompanying rivet - **arrow** -.
- Install inner headline molding on bracket.
- Perform function test.

Convertible top emergency release

NOTE:

- **If the convertible top cannot be operated because of implausible reasons, it may be in an undefined position (for the control module). Pull bracket up as far as stop and operate switch.**

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Convertible top compartment cover, unlocking and locking

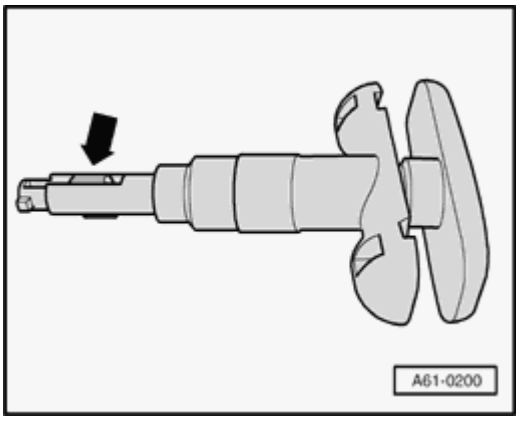


Fig. 175: Convertible Top Emergency Release Key In Basic Position
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Convertible top emergency release key in basic position - **arrow** -.

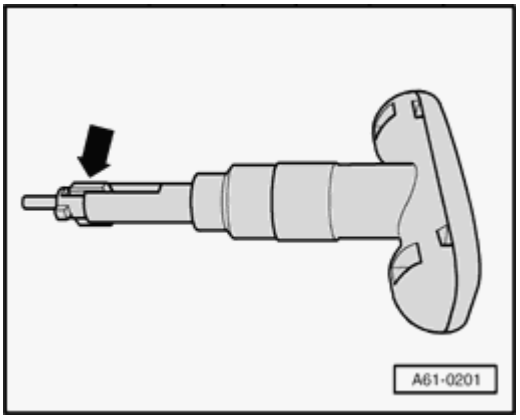


Fig. 176: Convertible Top Emergency Release Key In Work Position
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Convertible top emergency release key in work position - **arrow** -.

NOTE:

- **Convertible top emergency release key is located at left under instrument panel fuse cover.**
- **The designation "NES" is used for the convertible top emergency release key in the following description.**

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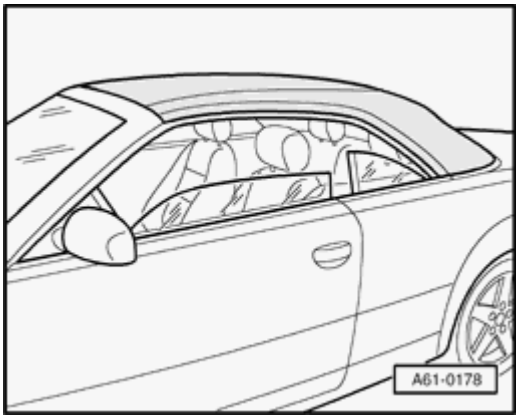


Fig. 177: Lowering Side Windows
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Lower side windows approx. 20 cm.
- Close luggage compartment cover.

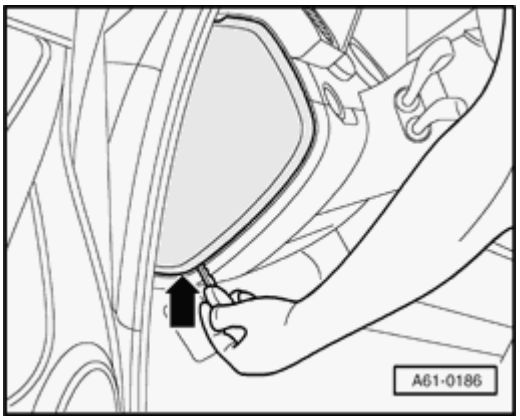


Fig. 178: Opening Drivers Door And Removing Fuse Carrier Cover On Instrument Panel
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Open drivers door and remove fuse carrier cover on instrument panel.

- There is a groove on the lower edge of the fuse cover in which a screwdriver, for example, can be inserted - **arrow** - in order to raise.

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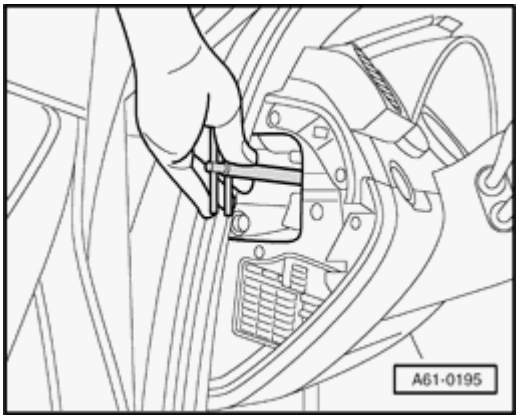


Fig. 179: Removing "NES" From Bracket Over Fuse Carrier In Instrument Panel
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove "NES" from bracket over fuse carrier in instrument panel.

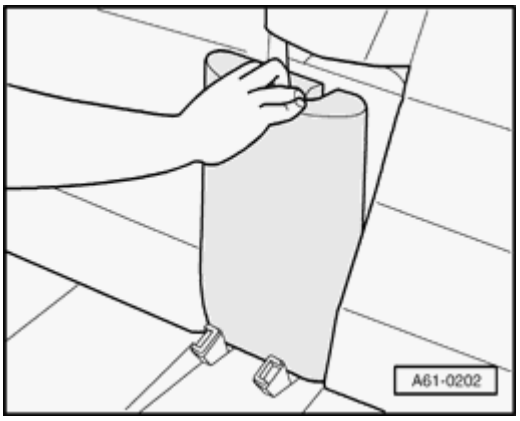


Fig. 180: Removing Center Piece Of Rear Backrest By Pushing Small Tabs Town Slightly And Pulling
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove center piece of rear backrest by pushing small tabs town slightly and pulling.

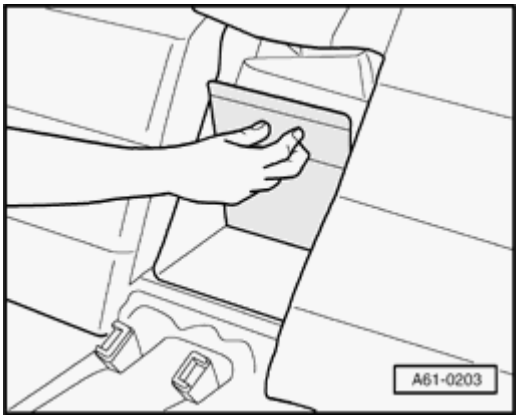


Fig. 181: Pressing Grip Holes Together And Folding Cover Up
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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- Press grip holes together and fold cover up.
- Press ski sack down and remove if necessary.

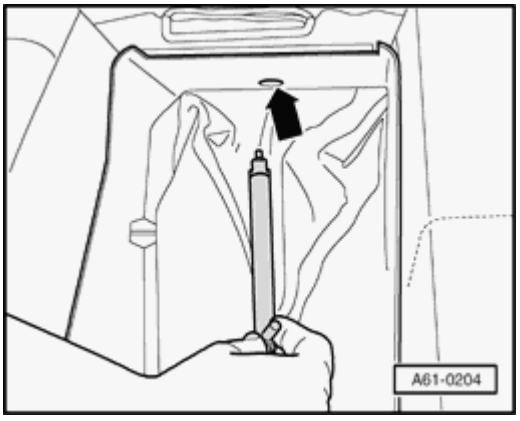


Fig. 182: Inserting "NES" In Opening At Top Center Of Ski Sack Tunnel
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Bring "NES" into basic position as follows:

- Turn red grip piece left as far as stop.
- Insert "NES" in opening at top center of ski sack tunnel.

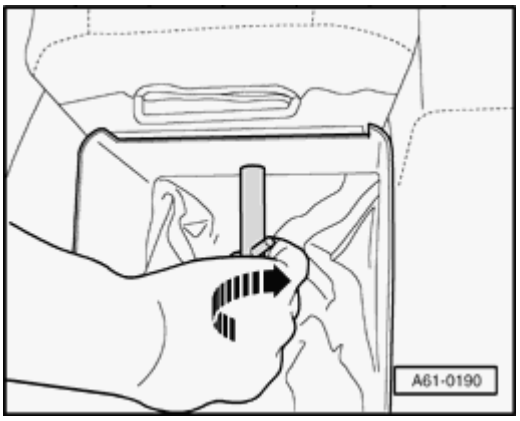


Fig. 183: Turning Entire "NES" Until Small Tabs On Key Head Engage In A Groove
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Turn entire "NES" until small tabs on key head engage in a groove.
- Turn entire "NES" $^{1}/_{4}$ turn clockwise against stop in lock.

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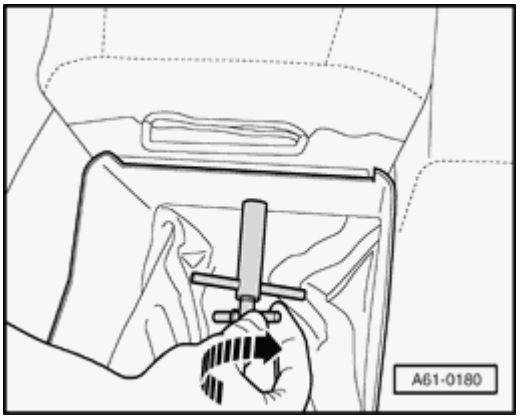


Fig. 184: Turning Red Grip Clockwise (1.5 Turns) Until Both Grip Recesses On "NES" Audibly Engage
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Turn red grip clockwise (1.5 turns) until both grip recesses on the "NES" audibly engage.
- The "NES" is secured in the lock system and can be operated.

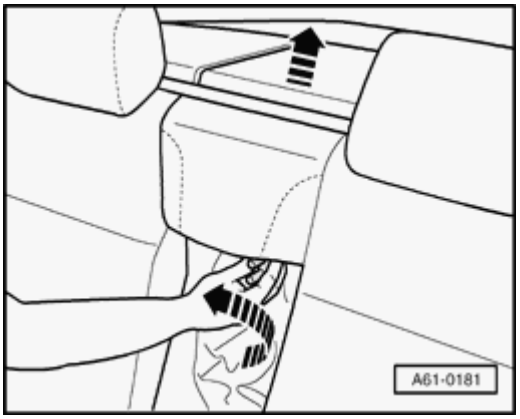


Fig. 185: Opening Convertible Top Compartment Cover By Turning "NES" Counter-Clockwise As Far As Stop
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Open convertible top compartment cover by turning "NES" counter-clockwise as far as stop.

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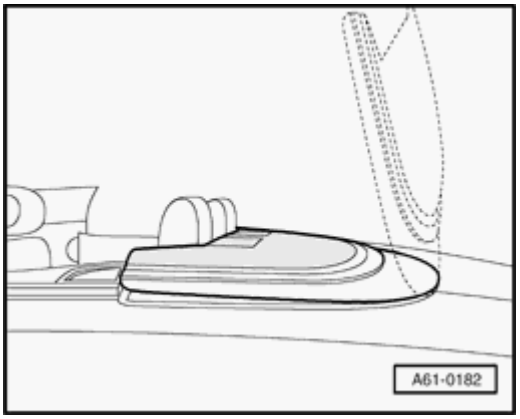


Fig. 186: Pulling Convertible Top Compartment Cover Out As Far As Stop
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull convertible top compartment cover out as far as stop.
- The convertible top compartment cover engages in open position.
- Raise convertible top out of compartment by pulling roof edge up forcefully.

Bring convertible top into center position manually as follows:

- Close convertible top until it stays half closed by itself. Slide roof edge forward as far as possible.
- Raise convertible top bracket until it stays in vertical position.
- Carefully press convertible top compartment cover shut.
- Turn entire "NES" clockwise as far as stop.
- The convertible top compartment cover is locked.

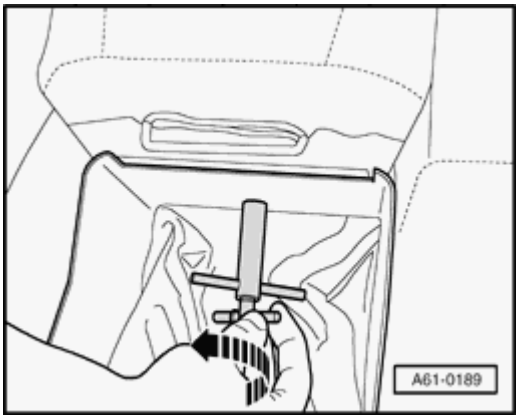


Fig. 187: Removing "NES"
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Remove "NES" as follows:

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- Turn red grip piece counter-clockwise as far as stop.
- Turn entire "NES" $^{1}/_{4}$ turn counter-clockwise and pull it down.

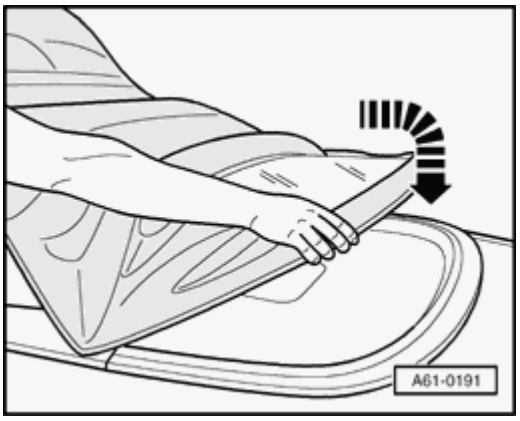


Fig. 188: Convertible Top, Unlocking And Locking
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Convertible top, unlocking and locking

- Press bracket onto convertible top compartment cover.
- Press convertible top at front of vehicle onto upper windshield frame.

- The convertible top may spring out slightly.

- Remove cover in center of the front rail trim inside vehicle.

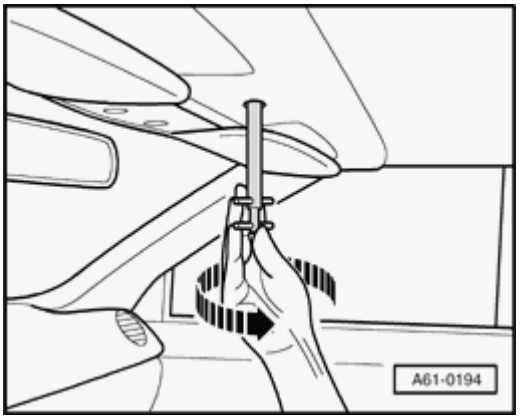


Fig. 189: Bringing "NES" Into Basic Position
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Bring "NES" into basic position as follows:

- Turn red grip piece left as far as stop.
- Insert "NES" in opening in center of front rail trim.

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- Turn entire "NES" until small tabs on key head engage in a groove.
- Turn entire "NES" $^{1}/_{4}$ turn clockwise against stop in lock.

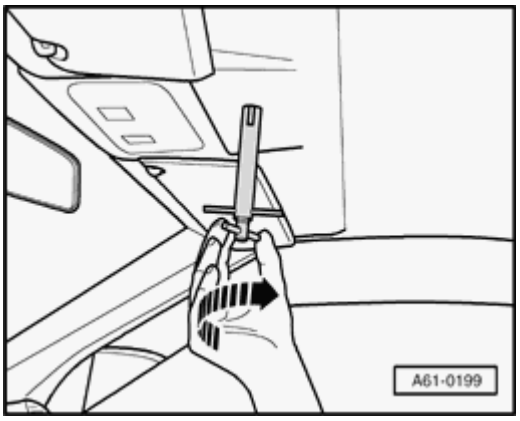


Fig. 190: Turning Red Grip Clockwise (1.5 Turns) Until Both Grip Recesses On "NES" Audibly Engage
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Turn red grip clockwise (1.5 turns) until both grip recesses on the "NES" audibly engage.

- The "NES" is secured in the lock system and can be operated.

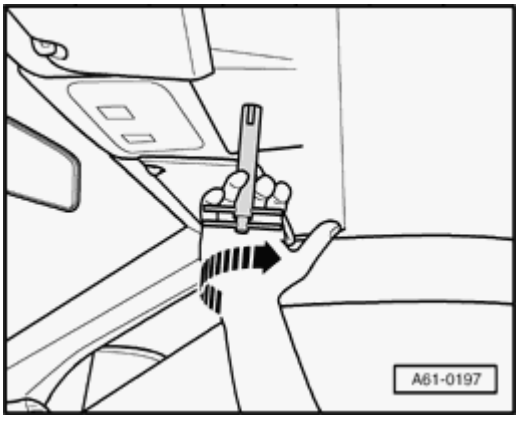


Fig. 191: Turning Entire "NES" Clockwise As Far As Stop
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Turn entire "NES" clockwise as far as stop.
- Pull convertible top down using "NES".
- Turn entire "NES" counter-clockwise as far as stop.

- The convertible top is locked.

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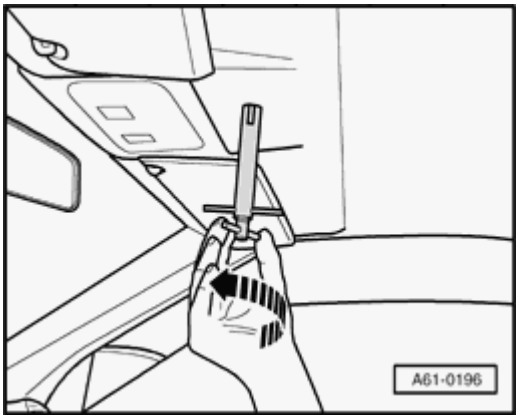


Fig. 192: Removing "NES"
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Remove "NES" as follows:

- Turn red grip piece counter-clockwise as far as stop.
- Turn entire "NES" $^{1}/_{4}$ turn counter-clockwise and pull it down.
- Re-install cover cap.
- Close side windows.

CONVERTIBLE TOP FRAME

Safety precautions

CAUTION: Observe measures when disconnecting battery -->

- **27 BATTERY, STARTER, GENERATOR, CRUISE CONTROL**
- **27 BATTERY, STARTER, GENERATOR, CRUISE CONTROL for ELECTRICAL EQUIPMENT, CABRIOLET**

.

CAUTION: Secure convertible top mechanism against unintentional folding up and down during all installation work as this can lead to personal injury or vehicle damage.

Attachments - assembly overview

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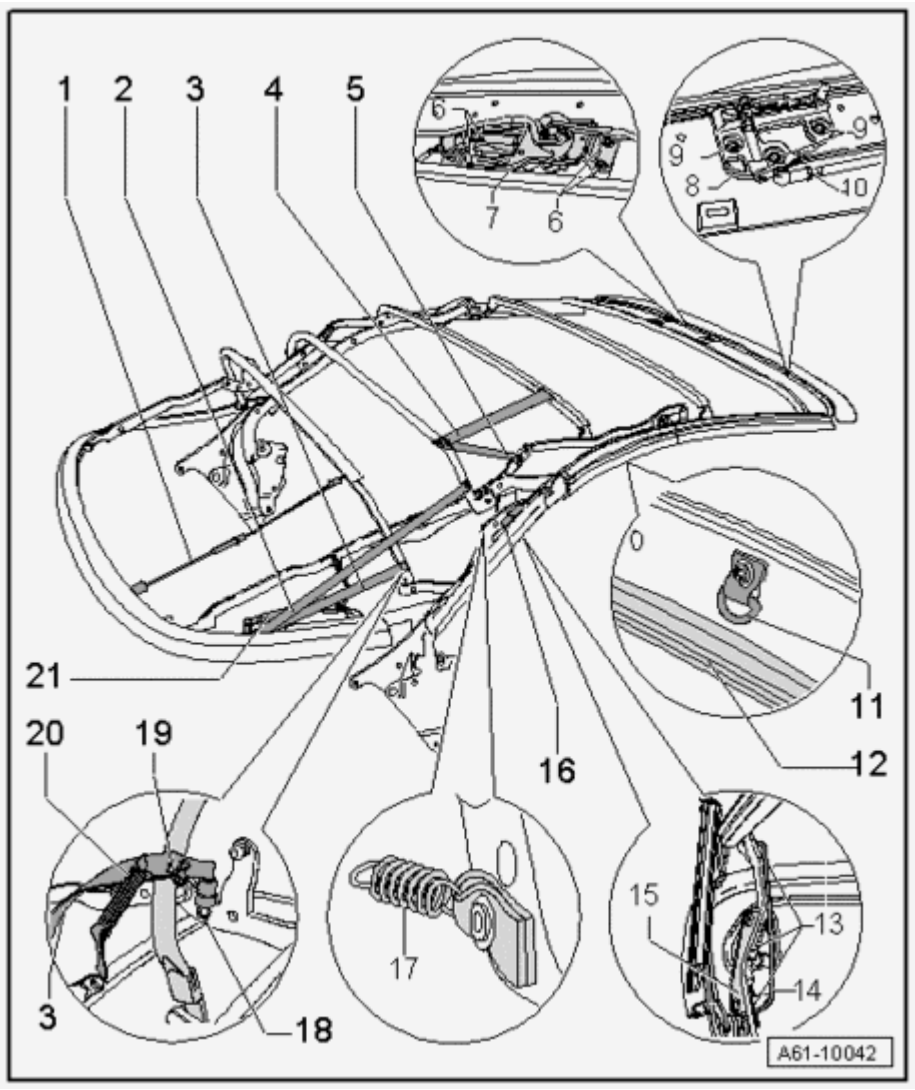


Fig. 193: Attachments - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Guide cable - rear window

- Removing **Attachments, removing and installing** .

2 - Bracket strap - rail "4"

- Removing **Attachments, removing and installing**.

3 - Bracket strap - rail "5"

- Removing **Attachments, removing and installing**.

4 - Rubber strap for rail "3" and "4"

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- Removing **Attachments, removing and installing** .

5 - Center brace strap - rail "4"

- Removing **Attachments, removing and installing** .

6 - Convertible Top Locking Motor V223 bolts

- 10 Nm

7 - Convertible Top Locking Motor V223 , (Convertible Top Lock Switch (open) F294 , Convertible Top Lock Switch (closed) F295)

- Removing --> **Convertible Top Locking Motor V223/Convertible Top Lock Switch (open) F294/Convertible Top Lock Switch (closed) F295 , removing and installing**.

8 - Convertible top lock

- Removing --> **Convertible top lock, removing and installing**.
- Adjusting --> **Convertible top locks, checking and adjusting**.

9 - Convertible top lock bolts

- 9 Nm

10 - Nut

- 6 Nm

11 - Cable eyelet- headliner

- Removing **Attachments, removing and installing** .

12 - Plastic profile

- Only on first generation vehicles.
- Removing **Attachments, removing and installing**.

13 - Screw

- 4 Nm

14 - Tensioning wire - headliner

- Removing **Attachments, removing and installing**.

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15 - Tensioning element - headliner

- Removing **Attachments, removing and installing**.

16 - Convertible top cover tensioning cable

- Removing **Attachments, removing and installing** .

17 - Cable spring - headliner (lengthwise)

- Removing **Attachments, removing and installing** .

18 - Cable spring - headliner (across)

- Removing **Attachments, removing and installing**.

19 - Cable eyelet- headliner

- Removing **Attachments, removing and installing**.

20 - Center brace spring - rail "5"

- Removing **Attachments, removing and installing** .

21 - Bracket insulation element

- Removing **Attachments, removing and installing** .

Attachments, removing and installing

- Convertible top headliner, removing --> **Convertible top headliner, removing and installing**.
- Remove convertible top cover --> **Convertible top cover, removing and installing**.
- Remove convertible top upholstery --> **Convertible top upholstery, removing and installing**.
- Remove seals --> **Convertible top frame seals - assembly overview**.

NOTE:

- **It is not always necessary to perform all preliminary work listed above to service individual convertible top frame attachments.**
- **In the instructions, the work on the convertible top frame is described without the convertible top headliner, convertible top cover, convertible top upholstery and seals.**
- **The description is based on the right side of the convertible top frame and can be applied to the left side the same way or in a similar way.**
- **The convertible top can be disassembled and pre-assembled in the vehicle when installed in vehicle.**

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- **When working on the convertible top electrical system, disconnect vehicle battery ground strap.**

- Remove convertible top locks --> **Convertible top lock, removing and installing**.
- Remove convertible top latch **Convertible Top Locking Motor V223/Convertible Top Lock Switch (open) F294/Convertible Top Lock Switch (closed) F295 , removing and installing**.

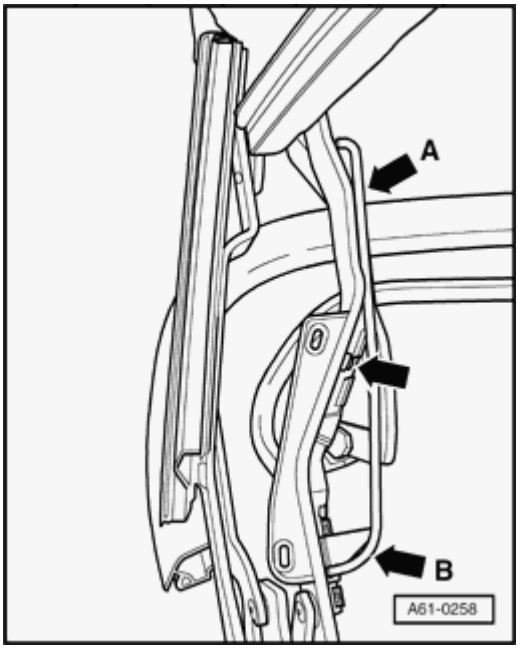


Fig. 194: Removing Bolts For Tensioning Wire And Tensioning Element On Main Guide Diverting Linkage
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts for tensioning wire and tensioning element - **arrows** - on main guide diverting linkage.

- The tensioning wire and tensioning element are secured together at the threaded connection - **arrow B** -.

NOTE:

- **To install convertible top headliner, bolt - arrow B - must be removed on some models in order to slide side strap on convertible top headliner over tensioning wire.**

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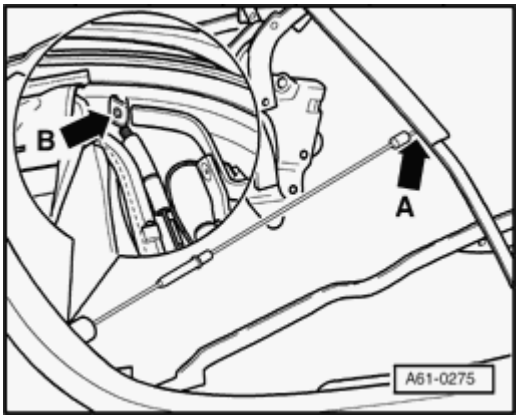


Fig. 195: Folding Bracket In Vertical Position (Convertible Top In Center Position) And Removing Bolt
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Fold bracket in vertical position (convertible top in center position) and remove bolt - **arrow B** -.
- Remove bolt - **arrow A** - on rail - **5** -.

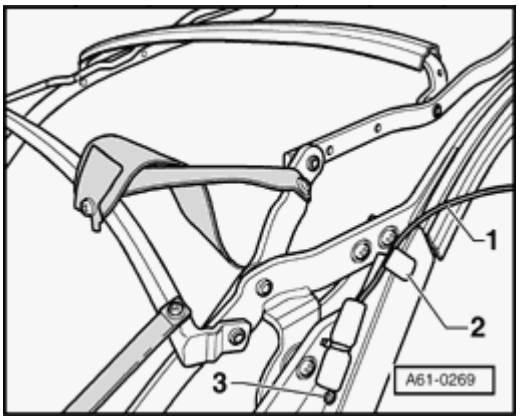


Fig. 196: Unclipping Tensioning Cable Sideways Out Of Guide On Main Guide
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Unclip tensioning cable - **1** - sideways out of guide - **2** - on main guide.
- Remove rivet - **3** - and remove tensioning cable.

NOTE:

- **On first generation vehicles, the tensioning cable - 1 - is bonded into the guide - 2 - with super glue.**

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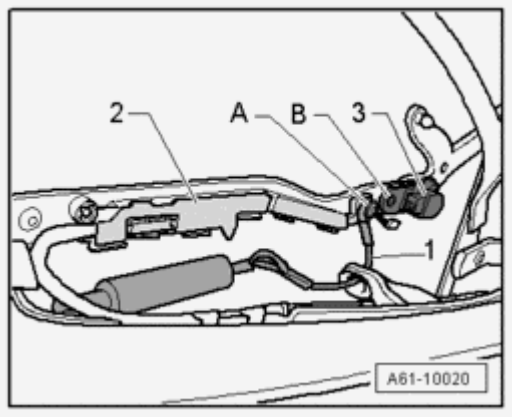


Fig. 197: Identifying Bolts, Tensioning Cable, Cable Guide & Convertible Top Frame Position Sensor G356
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolt - **A** - for tensioning cable - **1** - and cable guide - **2** -.
- Remove cable guide - **2** - from linkage.
- Remove bolt - **B** - and remove Convertible Top Frame Position Sensor G356 - **3** -.
- Remove wiring harness from its retainers on bracket.

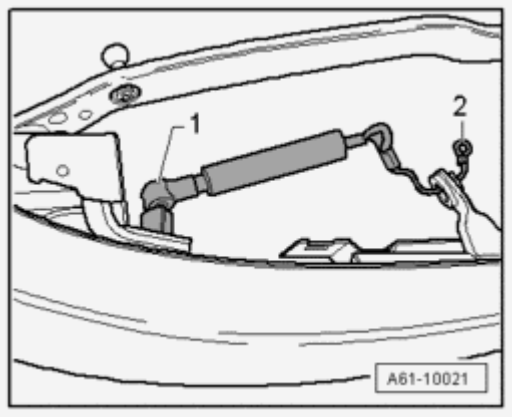


Fig. 198: Removing Band From Eyelet On Bracket & Bracket Insulating Element From Ball Head
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove band - **2** - from eyelet on bracket.
- Remove bracket insulating element from ball head - **1** -.

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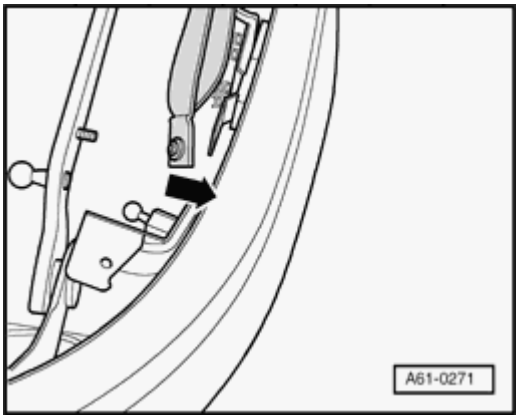


Fig. 199: Removing Shared Band Rivet Connection For Bracket Rail "4" And Bracket Rail "5" On Bracket
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove shared band rivet connection for bracket rail "4" and bracket rail "5" on bracket - **arrow** -.

NOTE:

- **Both bands must be re-riveted on shared mounting point in bracket - arrow - during installation.**

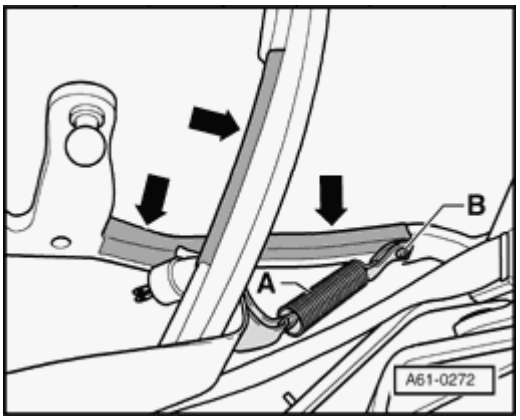


Fig. 200: Removing Bolt For Center Brace Rail Spring
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolt - **B** - for center brace rail spring "5" - **A** -.
- On first generation vehicles, check protective glide foil - **arrows** - on center bracket and on rail "5" for damage.

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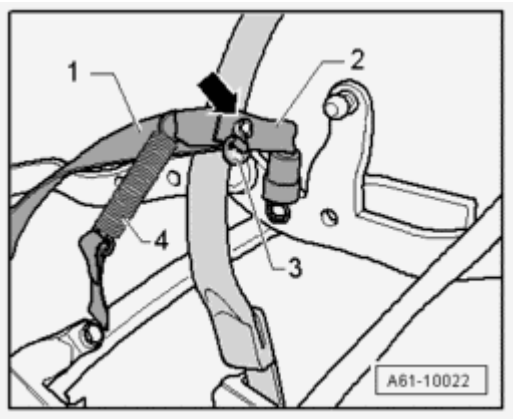


Fig. 201: Identifying Bracket Strap, Cable Spring, Cable Eyelet & Center Brace Spring
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove rivet - **arrow** - on rail "5".

The following parts are secured at this rivet connection:

1. Bracket strap - rail 5
2. Cable spring - headliner (across)
3. Cable eyelet- headliner
4. Center brace spring - rail 5

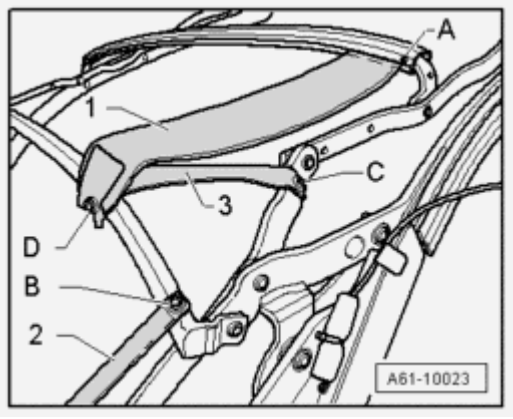


Fig. 202: Identifying Bolts, Rivets, Bands & Rubber Strap
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolt - **A** - and slide rubber strap - **1** - sideways from rail "3".
- Remove rivet - **B** - on rail "4" and remove band - **2** -.
- Remove rivet - **C** - from center brace and rivet - **D** - from rail "4".
- Remove band - **1** - and band - **3** -.

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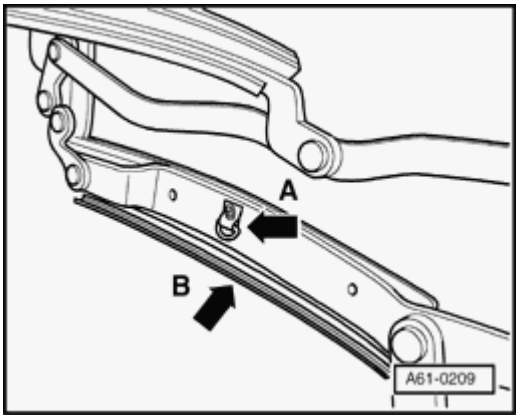


Fig. 203: Identifying Bolt & Plastic Profile
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolt - **A** - on inside of roof guide "2" and remove eye.
- On first generation vehicles, remove plastic profile - **B** - on bottom of roof guide "2".

NOTE:

- **The plastic profile - B - must be secured with suitable adhesive during installation.**

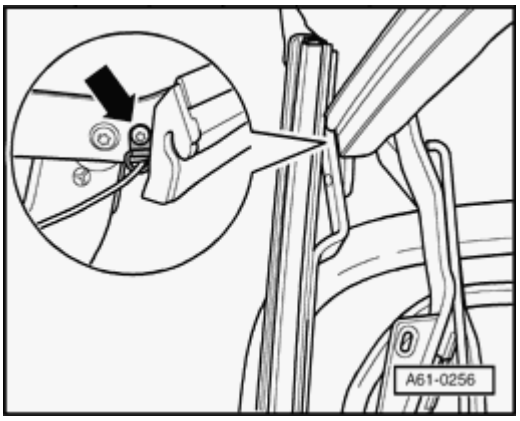


Fig. 204: Removing Bolt On "Lengthwise Headliner Cable" Eye
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Open convertible top until roof guide "2" and main guide do not touch at their rear edges.
- Remove bolt - **arrow** - on "lengthwise headliner cable" eye.

NOTE:

- **On some versions, the eyelet may be riveted to the main guide.**

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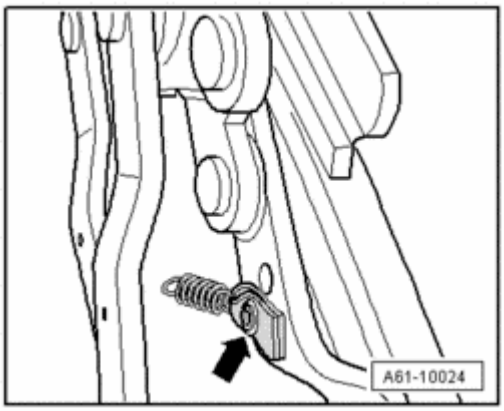


Fig. 205: Removing Rivet On Inside Of Main Guide
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove rivet - **arrow** - on inside of main guide.
- Remove "lengthwise headliner cable" spring.

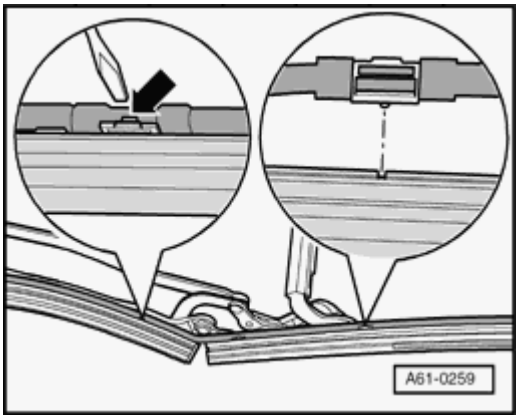


Fig. 206: Unclipping Convertible Top Latch Wiring Harness From Its Guide Beginning At Front Rail To Cable Bracket On Main Guide
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Unclip convertible top latch wiring harness from its guide - **arrow** - beginning at front rail to cable bracket on main guide.

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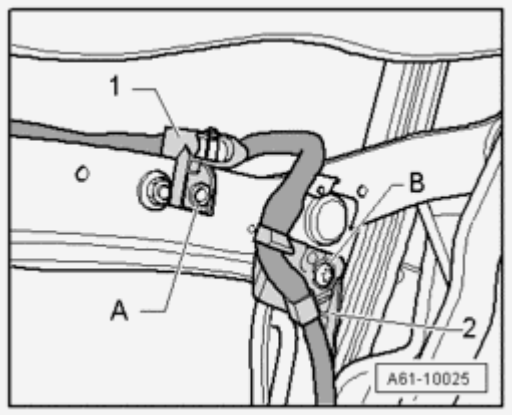


Fig. 207: Removing Rivet, Cable Bracket From Roof Guide, Bolt And Cable Channel From Diverting Linkage
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove rivet - **A** - and remove cable bracket - **1** - from roof guide "2".
- Remove bolt - **B** - and remove cable channel - **2** - from diverting linkage on inside of main guide and from main guide.
- Remove wiring harness.

NOTE:

- **When installing, ensure there are sufficient wire loops between wiring bracket - 1 - and cable channel - 2 - so that wiring harness will not be rubbed or bent.**

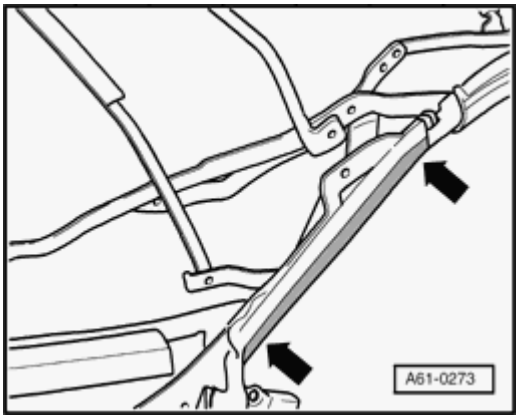


Fig. 208: Checking Double-Sided Tape On Outside Of Main Guide For Damage
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Check double-sided tape on outside of main guide - **arrows** - for damage.

NOTE:

- **The convertible top upholstery is secured to the main guide with the help of the adhesive tape.**

- Remove convertible top frame --> **Convertible top, removing and installing**.

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Installation is reverse of removal.

CONVERTIBLE TOP HYDRAULIC SYSTEM

Hydraulic system, general information

CAUTION: Observe measures when disconnecting battery -->

- **27 BATTERY, STARTER, GENERATOR, CRUISE CONTROL**
- **27 BATTERY, STARTER, GENERATOR, CRUISE CONTROL for ELECTRICAL EQUIPMENT, CABRIOLET**

.

CAUTION: Secure convertible top mechanism against unintentional folding up and down during all installation work as this can lead to personal injury or vehicle damage.

The hydraulic system is self-bleeding and maintenance-free.

When replacing the hydraulic cylinder or hoses, it is not necessary to top off hydraulic oil. There is sufficient hydraulic oil in the system so that the oil level does not go over or under the minimum markings.

If work is done as a result of hydraulic oil loss, the oil level should be checked before operating and adjusted if necessary.

Vehicles through 04.2006

The hydraulic system is switched off when the ignition is switched off or 10 minutes after the convertible top switch is operated when the ignition is switched on.

If the hydraulic pressure is maintained, the convertible top switch should be operated briefly with the ignition switched on.

Vehicles from 05.2006

When the ignition is switched off, the hydraulic system is switched off after 10 minutes.

To depressurize the system before this (for manual convertible top operation), the convertible top switch must be operated for 3 seconds with "ignition off".

If the hydraulic pressure is maintained, the convertible top switch should be operated briefly with the ignition switched on.

Cleanliness rules

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CAUTION: Hydraulic oil damages paint. Immediately remove any hydraulic oil that has come in contact with painted surfaces.

- Clean connecting points and surrounding areas before loosening.
- Place removed parts on a clean surface and cover. Use foil and paper. Do not use cloths with lint!
- Carefully cover or seal opened components if the repair will not be done immediately.
- Only install clean parts: Only remove replacement parts from packaging right before installation.

- Place collecting container or foil and cloths under connections to be opened so that hydraulic oil does not come into contact with painted surfaces.
- Seal open hydraulic lines with cover caps to prevent hydraulic oil from leaking out.

Hydraulic system - assembly overview

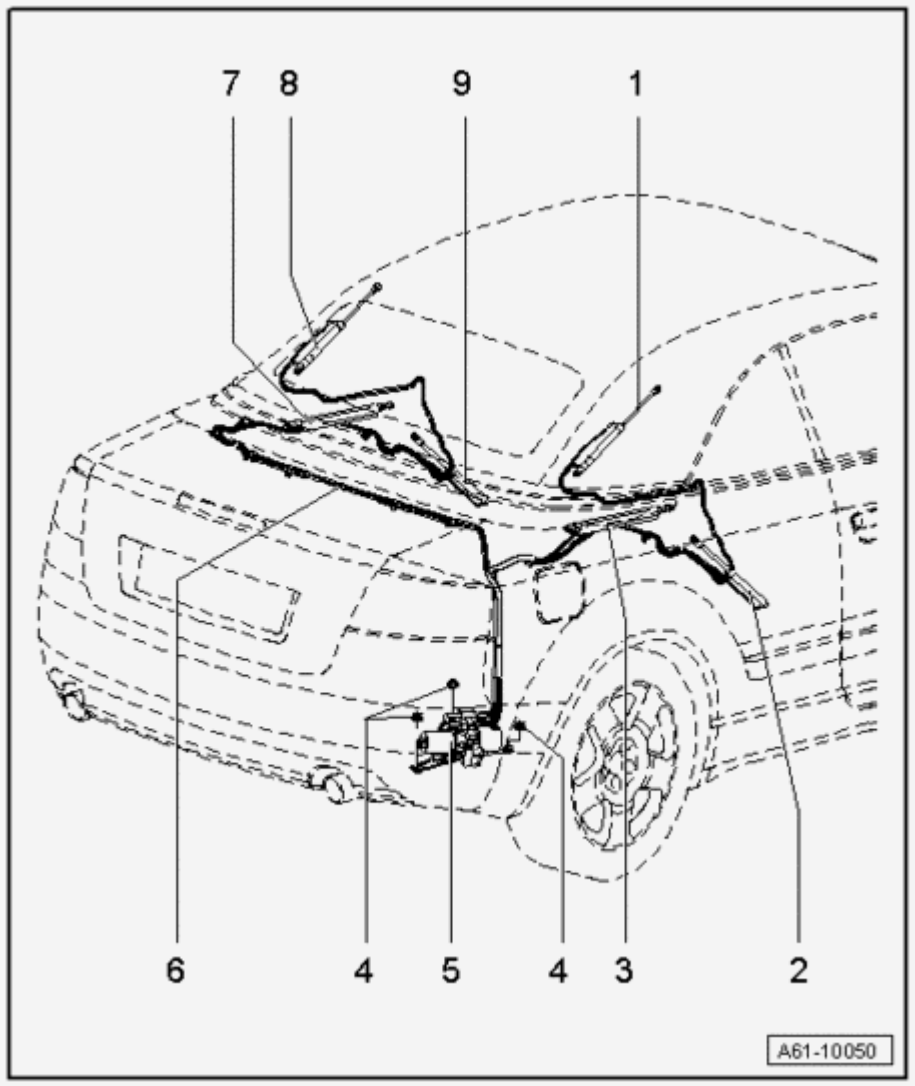


Fig. 209: Hydraulic System - Assembly Overview

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Right bracket drive motor cylinder

- Removing --> **Hydraulic cylinder, removing and installing**.

2 - Right main drive motor cylinder

- Removing --> **Hydraulic cylinder, removing and installing**.

3 - Right convertible top compartment cover drive motor cylinder

- Removing --> **Hydraulic cylinder, removing and installing**.

4 - Nut

- 3x
- 10 Nm

5 - Hydraulic pump with valve block

- Removing --> **Hydraulic unit (hydraulic pump), removing and installing**.

6 - Hydraulic lines

7 - Left convertible top compartment cover drive motor cylinder

- Removing --> **Hydraulic cylinder, removing and installing**.

8 - Left bracket drive motor cylinder

- Removing --> **Hydraulic cylinder, removing and installing**.

9 - Left main drive motor cylinder

- Removing --> **Hydraulic cylinder, removing and installing**.

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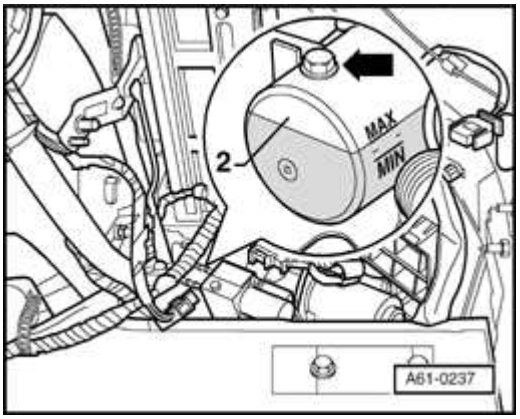


Fig. 210: Hydraulic System, Filling And Bleeding
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Oil filler screw

Pfeil - 2 Nm

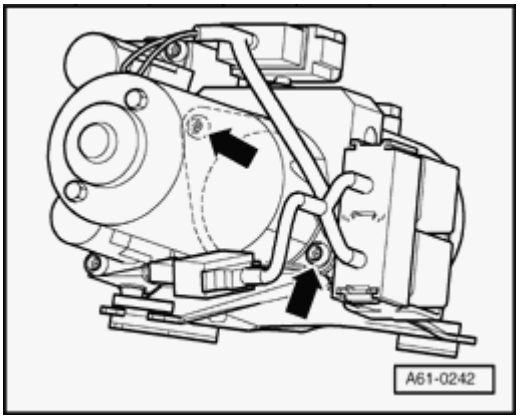


Fig. 211: Hydraulic Pump Housing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Hydraulic pump housing

Arrow - 6 Nm

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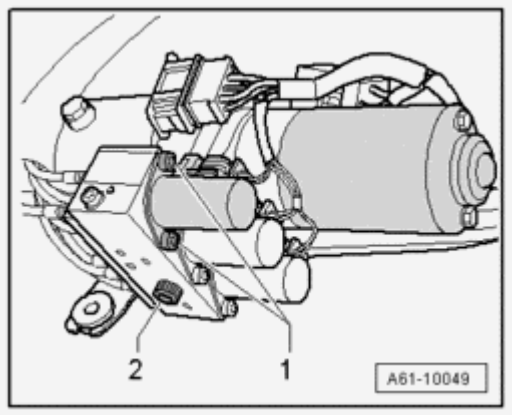


Fig. 212: Solenoid Valves
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Solenoid valves

1. 6 Nm
2. 22 Nm

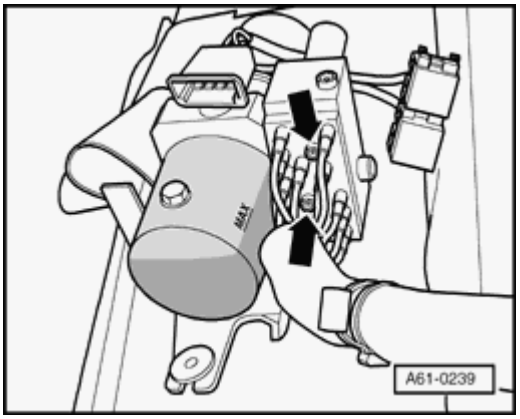


Fig. 213: Connecting Plate
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Connecting plate

Arrow - 10 Nm

Hydraulic system, function overview

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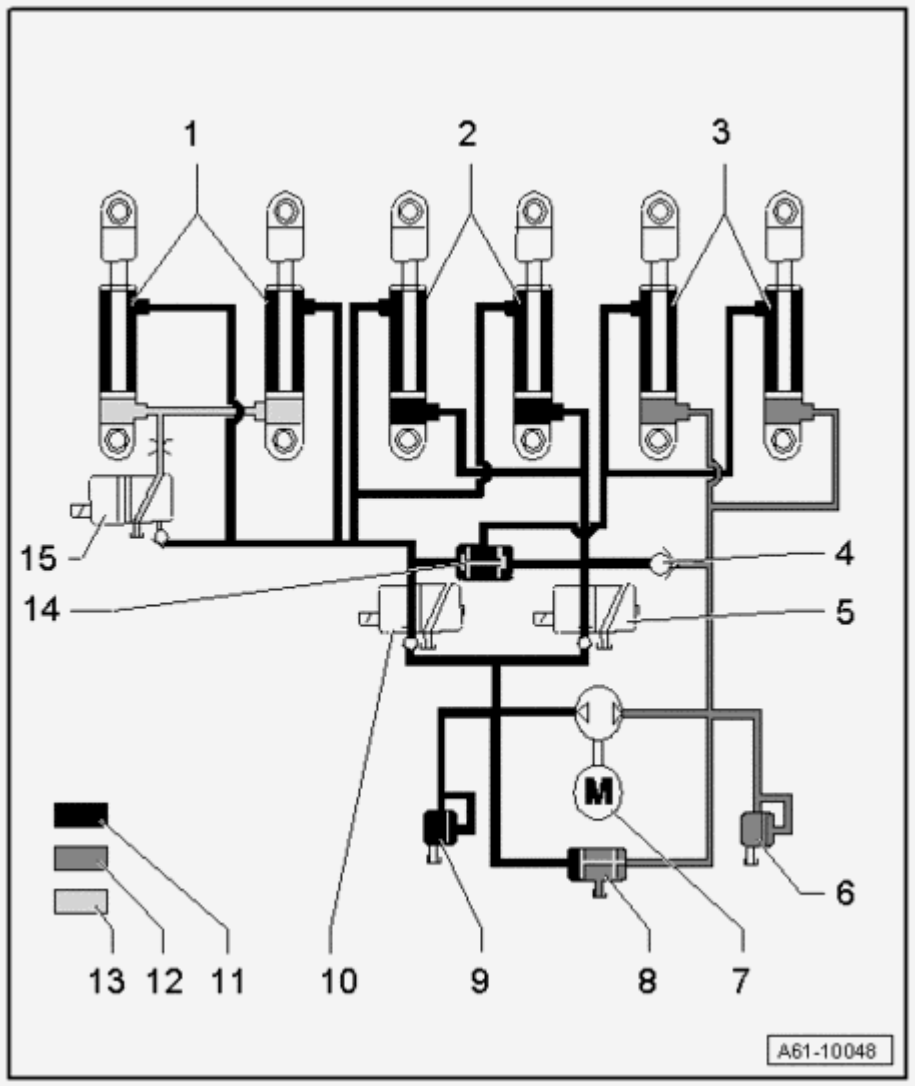


Fig. 214: Hydraulic System, Function Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Convertible top compartment cover cylinder

2 - Main cylinder

3 - Bracket cylinder

4 - Check valve S1

5 - Solenoid valve F3

6 - Pressure regulation valve D2

7 - ABS Hydraulic Pump

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8 - Two-way valve W2

9 - Pressure regulation valve D1

- On-board voltage in contact = flow
- Solenoid valve with no current = return open

10 - Solenoid valve F2

- On-board voltage in contact = flow
- Solenoid valve with no current = return open

11 - Pump pressure

12 - Return pressure

13 - Line depressurized

14 - Two-way valve W1

15 - Solenoid valve F1

- On-board voltage in contact = flow
- Solenoid valve with no current = return open

Hydraulic function "open" , raise bracket

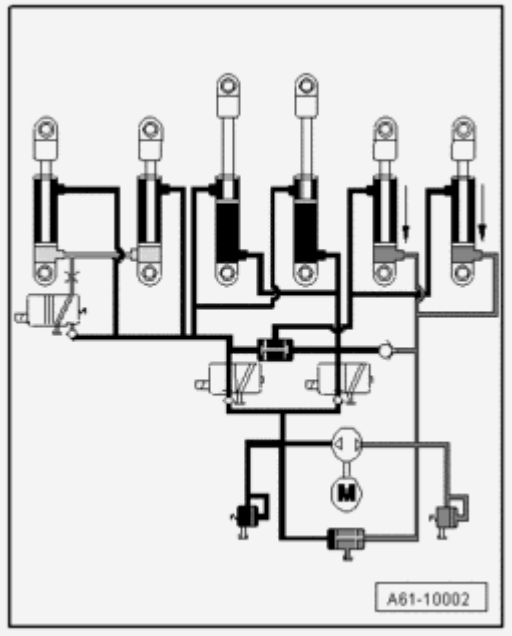


Fig. 215: Hydraulic Function "Open" , Raise Bracket

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pump rotation direction: right
- Energized solenoid valve F2
- Energized solenoid valve F3

Convertible top compartment cover cylinder

The convertible top compartment cover cylinder rebound stages are charged with pressure via the energized solenoid valve F2. In this way, the convertible top compartment cover remains in closed position.

Main cylinder

Solenoid valves F2 and F3 are energized.

In this way, the main cylinder pressure stage and rebound stage are charged with pressure.

The pressure is evenly distributed to the cylinder rebound and pressure stages.

Because the pressure stage has the larger piston surfaces in comparison to the rebound stage, different forces can be generated with the same pressure ratios. The force acts on the pressure stage, whereby the cylinder moves out to the end stop and remains there. The convertible top remains tilted forward.

Bracket cylinder

Both bracket cylinders are activated by solenoid valve F3 during the rebound stage and raise the bracket.

Because it is activated simultaneously from both sides, the two-way valve W1 is permeable in the direction of the bracket cylinder rebound stage. Flow to the cylinder pressure stages is blocked by a check valve active on one side.

Through this, the bracket cylinders are retracted and the bracket is raised. Hydraulic oil displaced in the pressure stages is transferred into the hydraulic reservoir.

Component overview **Hydraulic system, function overview**.

Hydraulic function "open" , convertible top compartment cover open

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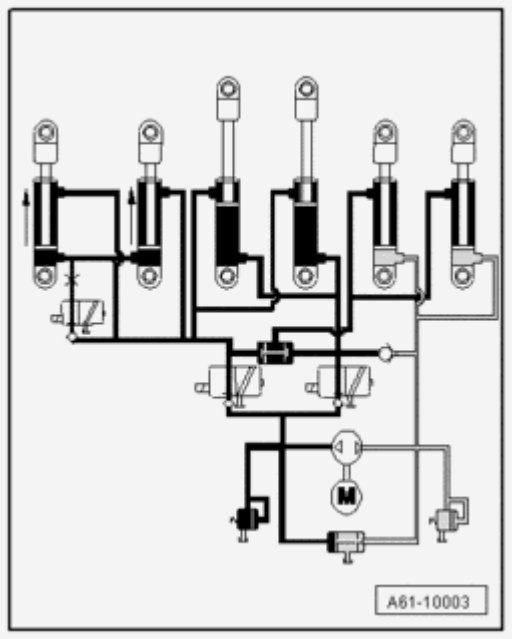


Fig. 216: Hydraulic Function "Open" , Convertible Top Compartment Cover Open
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pump rotation direction: right
- Energized solenoid valve F1
- Energized solenoid valve F2
- Energized solenoid valve F3

Convertible top compartment cover cylinder

The convertible top compartment cover cylinders are charged with pressure from both sides simultaneously by the energized solenoid valves F1 and F2 and in this way are run out.

The reason for this lies in the larger piston surface in the pressure stage and the different power ratios due to this resulting from the same large pressure charge.

The convertible top compartment cover is raised.

Main cylinder

Solenoid valves F2 and F3 are energized.

In this way, the main cylinder pressure stages and rebound stages are charged with pressure.

Bracket cylinder

The two-way valve S1 is charged with pressure from both sides simultaneously via the energized solenoid valves F2 and F3. In this way, it is interconnected and the hydraulic pressure is directed to the bracket cylinder

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rebound stages.

Through this, the bracket cylinders remain retracted and the bracket is raised.

Component overview **Hydraulic system, function overview**.

Hydraulic function "open" , store bracket.

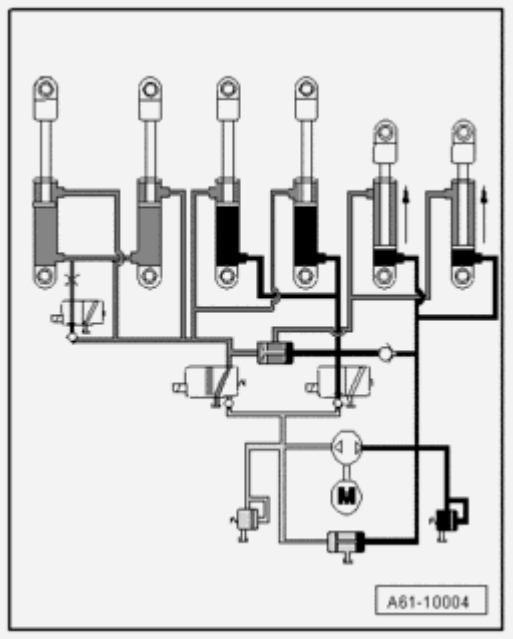


Fig. 217: Hydraulic Function "Open" , Store Bracket.
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pump rotation direction: left
- Energized solenoid valve F1
- Energized solenoid valve F3

Convertible top compartment cover cylinder

The convertible top compartment cover cylinders are not activated.

The check valve contained within comes into use through the energized solenoid valve F1. This prevents the cylinder from becoming depressurized in the pressure stage and the convertible top compartment cover from being closed.

Main cylinder

The hydraulic pressure is channeled directly to the main cylinder pressure stages via check valve S1.

These remain run out and hold the convertible top in forward position.

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The hydraulic pressure cannot vent in the system through two-way valve S1 and energized solenoid valve F3.

Bracket cylinder

Both bracket cylinders are directly charged with pressure via the pressure stage.

They are run out and the bracket is stored in the convertible top compartment.

In the rebound stage, displaced hydraulic oil is directed in the system and discharged into the hydraulic oil reservoir via F2.

Component overview **Hydraulic system, function overview**.

Hydraulic function "open" , store convertible top

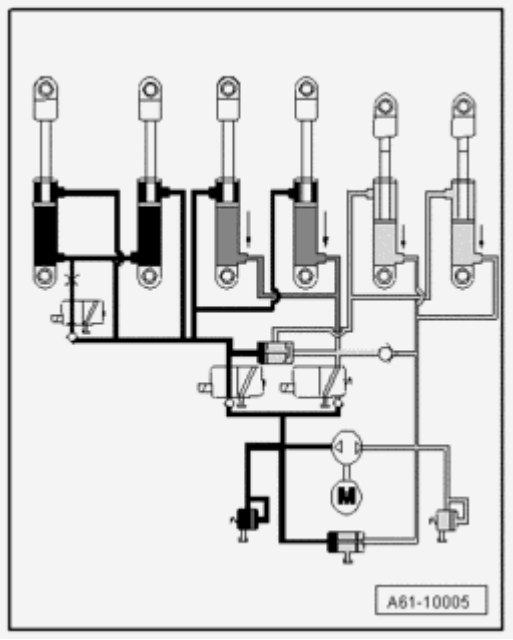


Fig. 218: Hydraulic Function "Open" , Store Convertible Top
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pump rotation direction: right
- Energized solenoid valve F1
- Energized solenoid valve F2

Convertible top compartment cover cylinder

The convertible top compartment cover cylinders are charged with pressure simultaneously from both sides via energized solenoid valves F1 and F2.

The cylinders remain run out and the convertible top compartment cover is raised.

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Main cylinder

The hydraulic pressure is channeled directly to the main cylinder rebound stage via solenoid valve F2.

These are retracted and store the convertible top in the convertible top compartment.

The hydraulic oil displaced from the pressure stage is directed into the hydraulic oil reservoir via F3.

Bracket cylinder

Both bracket cylinders are not activated.

Both bracket cylinders are partially retracted by the convertible top mechanics.

Component overview **Hydraulic system, function overview**.

Hydraulic function "open" , close convertible top compartment cover

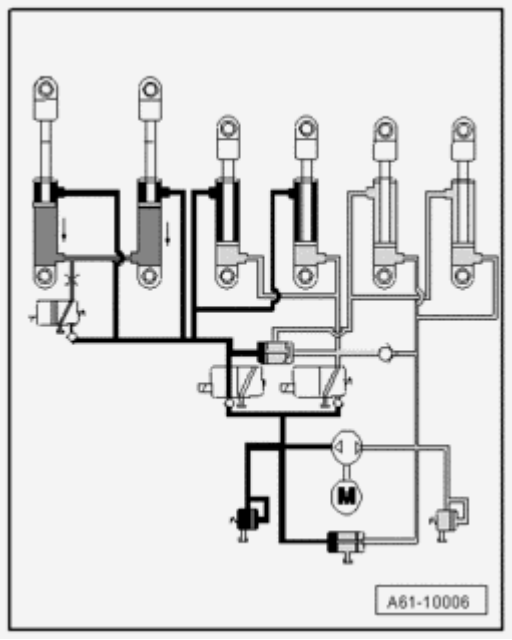


Fig. 219: Hydraulic Function "Open" , Close Convertible Top Compartment Cover
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pump rotation direction: right
- Energized solenoid valve F2

Convertible top compartment cover cylinder

The convertible top compartment cover cylinders are charged with pressure at the rebound stage via the energized solenoid valve F2.

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They are retracted and in this way, the convertible top compartment cover is closed.

The hydraulic oil escaping from the pressure stage is directed into the hydraulic oil reservoir via F1.

Main cylinder

The hydraulic pressure is channeled directly to the main cylinder rebound stage via solenoid valve F2.

In that way, they remain retracted and leave the convertible top in the convertible top compartment.

Bracket cylinder

The bracket cylinders are not activated.

They remain partially retracted.

Component overview **Hydraulic system, function overview**.

Hydraulic functions "close" , raise convertible top compartment cover

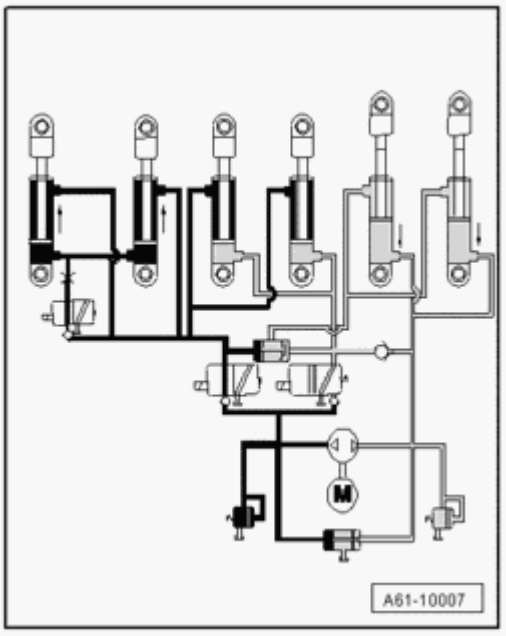


Fig. 220: Hydraulic Functions "Close" , Raise Convertible Top Compartment Cover
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pump rotation direction: right
- Energized solenoid valve F1
- Energized solenoid valve F2

Convertible top compartment cover cylinder

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The convertible top compartment cover cylinders are charged with pressure from both sides simultaneously by the energized solenoid valves F1 and F2 and in this way are run out.

The convertible top compartment cover is raised.

Main cylinder

The hydraulic pressure is directed to both main cylinders in the rebound stages via solenoid valve F2. Both main cylinders remain retracted.

Bracket cylinder

The bracket cylinders are not activated.

They remain partially retracted.

Component overview **Hydraulic system, function overview**.

Hydraulic functions "close" , raise convertible top from convertible top compartment

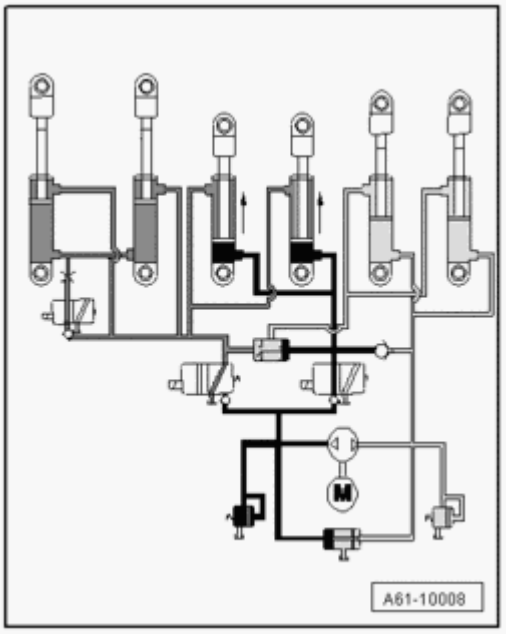


Fig. 221: Hydraulic Functions "Close" , Raise Convertible Top From Convertible Top Compartment
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pump rotation direction: right
- Energized solenoid valve F1
- Energized solenoid valve F3

Convertible top compartment cover cylinder

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The convertible top compartment cover cylinders are not activated.

The check valve contained within comes into use through the energized solenoid valve F1. This prevents the cylinder from running idle in the pressure stage and the convertible top compartment cover from being closed.

Main cylinder

The pressure stages for both main cylinders are directly charged with hydraulic pressure via the energized solenoid valve F3.

The cylinders run out and the convertible top is raised.

Bracket cylinder

The bracket cylinders are not activated.

Both bracket cylinders are partially run out by the convertible top mechanics.

Component overview **Hydraulic system, function overview**.

Hydraulic functions "close" , raise bracket

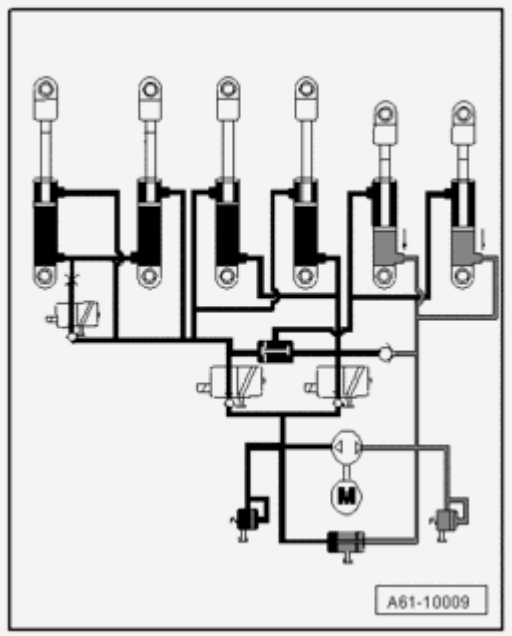


Fig. 222: Hydraulic Functions "Close" , Raise Bracket
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pump rotation direction: right
- Energized solenoid valve F1
- Energized solenoid valve F2

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- Energized solenoid valve F3

Convertible top compartment cover cylinder

The convertible top compartment cover cylinders remain charged with pressure from both sides simultaneously by the energized solenoid valves F1 and F2 and in this way remain run out.

The convertible top compartment cover remains raised.

Main cylinder

Both pressure stages for the main cylinder are charged simultaneously by the energized solenoid valves F2 and F3.

The cylinders remain run out and ensure the convertible top remains in forward position.

Bracket cylinder

The two-way valve S1 is charged with pressure from both sides simultaneously via the energized solenoid valves F2 and F3. In this way, it is interconnected and the hydraulic pressure is directed to the bracket cylinder rebound stage.

The bracket cylinders are retracted and the bracket is raised.

The hydraulic oil escaping from the pressure stage is directed into the hydraulic oil reservoir via W2.

Component overview **Hydraulic system, function overview**.

Hydraulic functions "close" , close convertible top compartment cover

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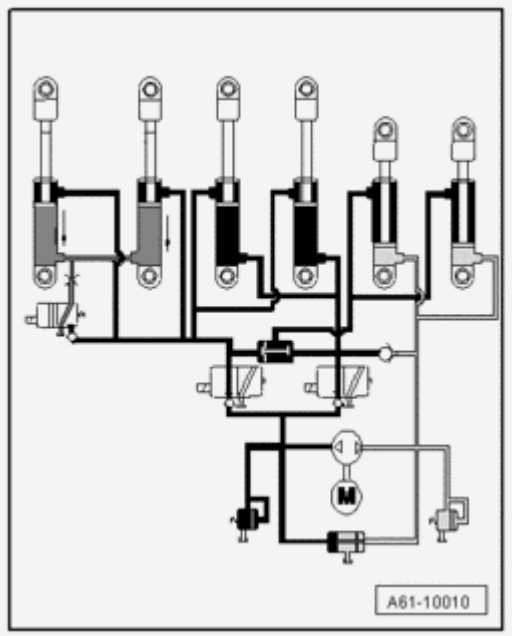


Fig. 223: Hydraulic Functions "Close" , Close Convertible Top Compartment Cover
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pump rotation direction: right
- Energized solenoid valve F2
- Energized solenoid valve F3

Convertible top compartment cover cylinder

The convertible top compartment cover cylinders are charged with pressure at the rebound stage via the energized solenoid valve F2.

They are retracted and in this way, the convertible top compartment cover is closed.

The hydraulic oil displaced from the pressure stage is directed into the hydraulic oil reservoir via F1.

Main cylinder

Solenoid valves F2 and F3 are energized.

In this way, the main cylinder pressure stage and rebound stage are charged with pressure.

The cylinders remain run out and ensure the convertible top remains in forward position.

Bracket cylinder

The two-way valve W1 is charged with pressure simultaneously from both sides.

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In this way, it is interconnected and the hydraulic pressure is directed to the bracket cylinder rebound stages.

The flow to the cylinder pressure stages is blocked by check valve S1 active on one side.

Through this, the bracket cylinders remain retracted and the bracket is raised.

Component overview **Hydraulic system, function overview**.

Hydraulic functions "close" , store bracket

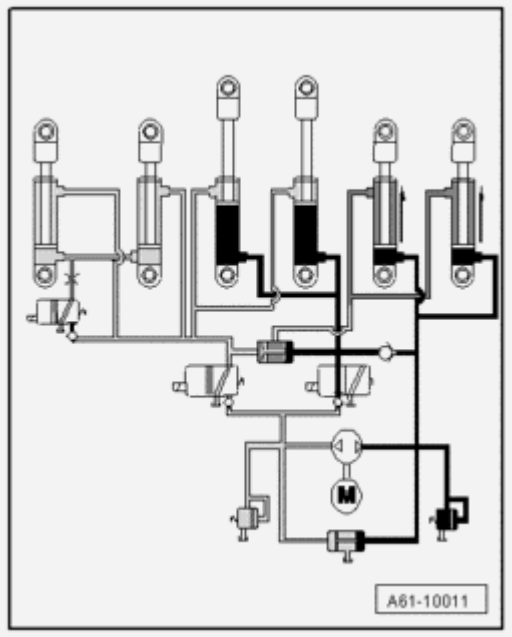


Fig. 224: Hydraulic Functions "Close" , Store Bracket
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pump rotation direction: left
- Energized solenoid valve F3

Convertible top compartment cover cylinder

The convertible top compartment cover cylinders are not activated because solenoid valve F2 is not energized.

They remain retracted and the convertible top compartment cover remains closed.

Main cylinder

The hydraulic pressure is channeled directly to the main cylinder pressure stage via check valve S1.

These remain run out and hold the convertible top in forward position.

The hydraulic pressure cannot vent in the system through two-way valve S1 and energized solenoid valve F3.

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Bracket cylinder

Both bracket cylinders are charged with pressure in the pressure stage.

They run out and the bracket is stored on the convertible top compartment cover. The hydraulic oil displaced from the rebound stages is directed in the system and channeled into the hydraulic oil reservoir via F2.

Component overview **Hydraulic system, function overview**.

Hydraulic system, filling and bleeding

NOTE:

- **The electro-hydraulic convertible top operation involves a closed hydraulic system. Generally, filling is necessary after a loss of oil (accident, leaks, etc.).**
- **Due to the lift and displacement effect of the pistons in the hydraulic cylinders, the hydraulic system must be filled when the convertible top is stored in the compartment.**
- **The convertible top must be moved with electro-hydraulic operation.**

CAUTION: Do not fill system above "MAX" marking as the pressure in the system can become so great that damage can result.

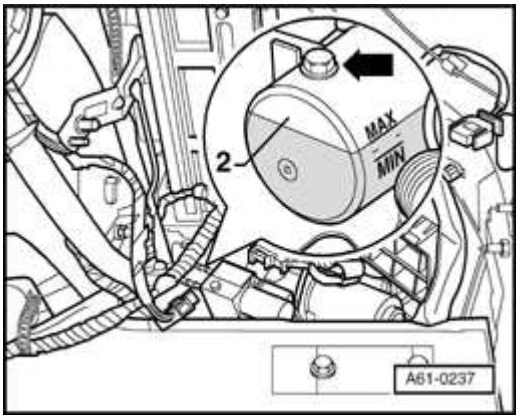


Fig. 225: Hydraulic System, Filling And Bleeding
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Filling

- Remove luggage compartment trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .
- Remove oil filler plug - **arrow** -.

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- Fill *Hydraulic Oil G 004 000* with a fill container until oil level is between "MIN" and "MAX" markings.

Bleeding

NOTE:

- **Hydraulic system is self-bleeding. The system is bled after opening and closing the convertible top several times.**

- Start the engine.
- Close and open the convertible top 4 - 5 times with electro-hydraulic operation.
- The convertible top must move smoothly and without jerking.
- Check oil level in oil reservoir - **2** - when convertible top is stored in compartment.
- Oil level must be between "MIN" and "MAX" markings.
- Top off hydraulic oil if necessary.

Tightening torques --> **Hydraulic system - assembly overview**.

Hydraulic unit (hydraulic pump), removing and installing

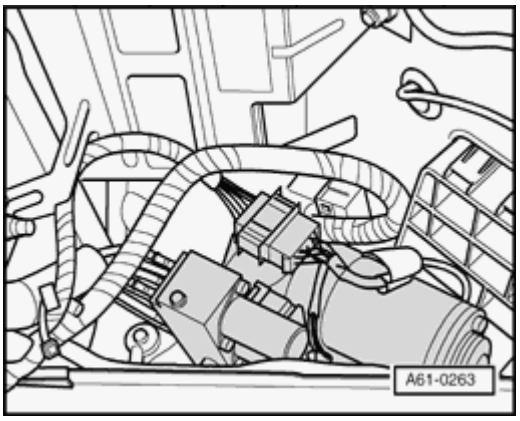


Fig. 226: Hydraulic Unit (Hydraulic Pump)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove luggage compartment trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .
- Remove bolts.
- Remove hydraulic lines from their guides.
- Remove electrical connectors.

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- Raise hydraulic pump from its position and place it on a surface in the luggage compartment.
- Remove hydraulic lines --> **Hydraulic lines to connecting plate, removing and installing**.

Installation is reverse of removal.

Tightening torques --> **Hydraulic system - assembly overview**.

Hydraulic pump housing, removing and installing

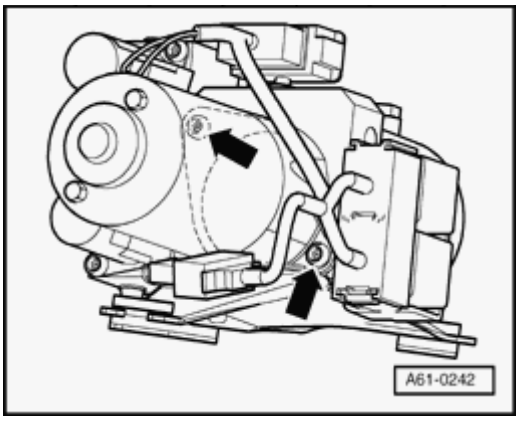


Fig. 227: Hydraulic Pump Housing, Removing And Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove hydraulic pump --> **Hydraulic unit (hydraulic pump), removing and installing**.
- Remove screws - **arrows** -.
- Carefully remove pump housing.

Tightening torques --> **Hydraulic system - assembly overview**.

Pump wheel, removing and installing

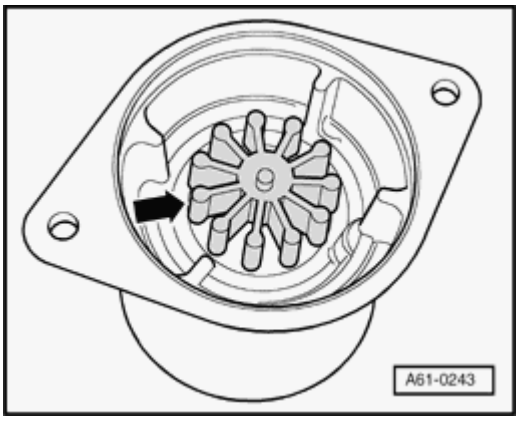


Fig. 228: Checking Pump Wheel
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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- Remove hydraulic pump housing --> **Hydraulic pump housing, removing and installing**.
- Check pump wheel - **arrow** - for damage.
- Remove pump wheel upward.

Solenoid valve, removing and installing

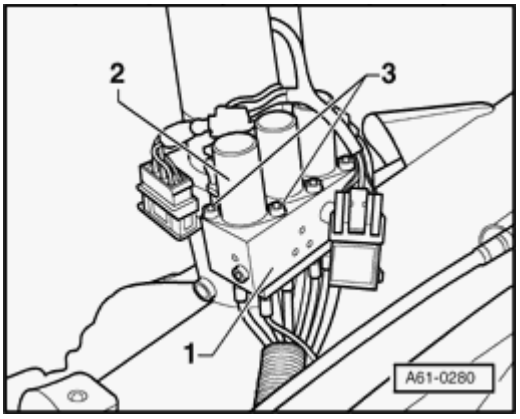


Fig. 229: Solenoid Valve Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Removing

Follow cleanliness rules --> **Cleanliness rules**.

- Remove hydraulic pump --> **Hydraulic unit (hydraulic pump), removing and installing**.
- Remove bolts - **3** -.
- Remove solenoid valve - **2** - upward out of hydraulic pump - **1** -.

Installing

CAUTION: Solenoid valves may only be installed in hydraulic pump in activated (energized) condition. Initiate output diagnostic test mode (DTM) and activate the affected solenoid valve for this.

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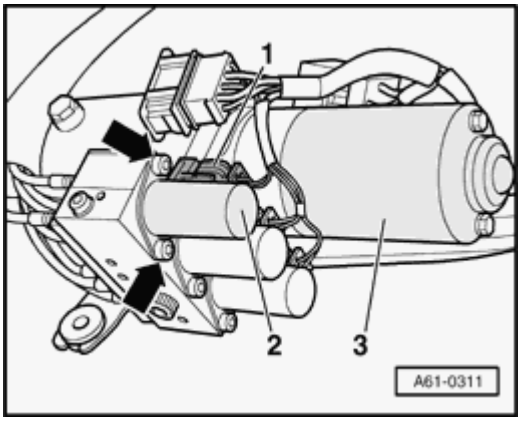


Fig. 230: Identifying Solenoid Valve, Electrical Harness Connector & Hydraulic Pump
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Connect electrical harness connector - **1** - to solenoid valve - **2** -.
- Initiate output diagnostic test mode and activate solenoid valve to be installed.
- Insert activated solenoid valve - **2** - in hydraulic pump - **3** -.
- Tighten bolts - **arrows** -.

Tightening torques --> **Hydraulic system - assembly overview**.

Hydraulic lines, removing and installing

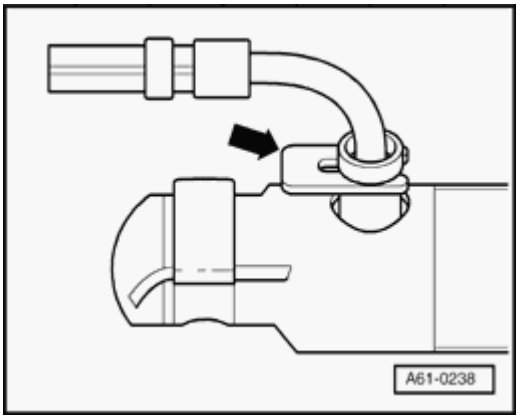


Fig. 231: Removing Securing Plate From The Groove
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove rear side trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .
- Using pliers, remove securing plate - **arrow** - from the groove.
- Remove hydraulic line from hydraulic cylinder.

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NOTE:

- **Hydraulic line seal is pressed into hydraulic cylinder and cannot be replaced separately.**

Hydraulic lines to connecting plate, removing and installing

Special tools, testers and auxiliary items required

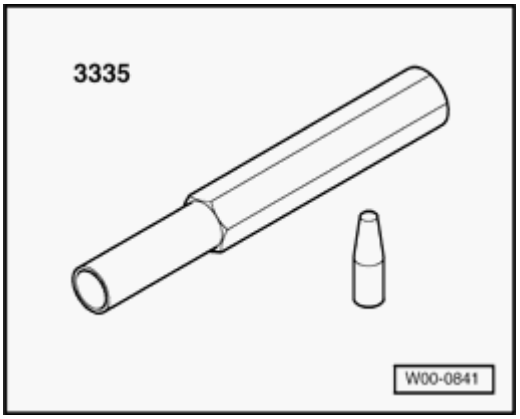


Fig. 232: Hydraulic Line Connect Tool 3335
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Hydraulic Line Connect Tool 3335

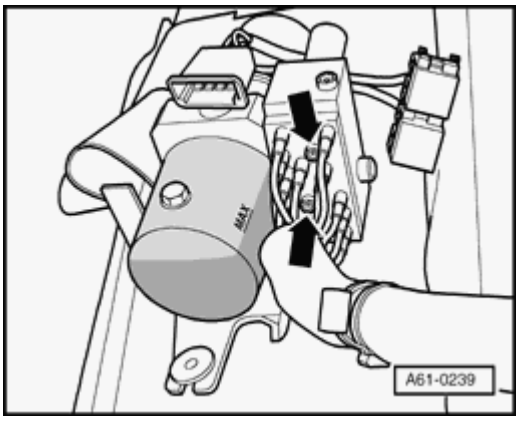


Fig. 233: Connecting Plate
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Removing

Follow cleanliness rules --> **Cleanliness rules**.

Hydraulic pump connection table **Hydraulic pump connection table**.

- Remove hydraulic pump --> **Hydraulic unit (hydraulic pump), removing and installing**.
- Remove center and side bulkhead trim -->

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- **70 - INTERIOR TRIM**
- **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

.

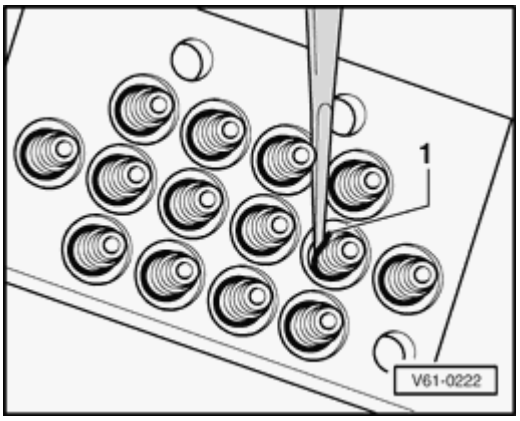


Fig. 234: Identifying Spring Washer
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Raise spring washer - **1** - on hydraulic lines to be removed (supply and return) over collar on connecting piece with a small screwdriver and remove.

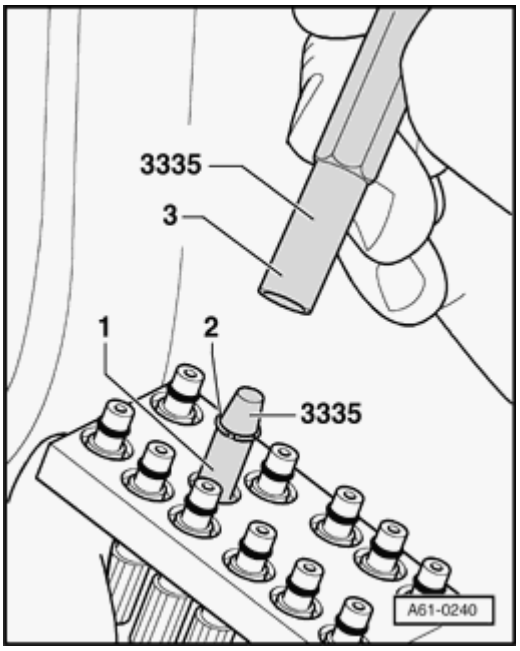


Fig. 235: Identifying Hydraulic Line Connect Tool 3335 Sleeve, Spring Washer & Hydraulic Line Connect Tool 3335
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Installing

- Place hydraulic line with connecting piece through connecting plate.

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- Place Hydraulic Line Connect Tool 3335 sleeve - **1** - over connecting piece.
- Slide spring washer - **2** - onto sleeve and press it on completely with Hydraulic Line Connect Tool 3335.

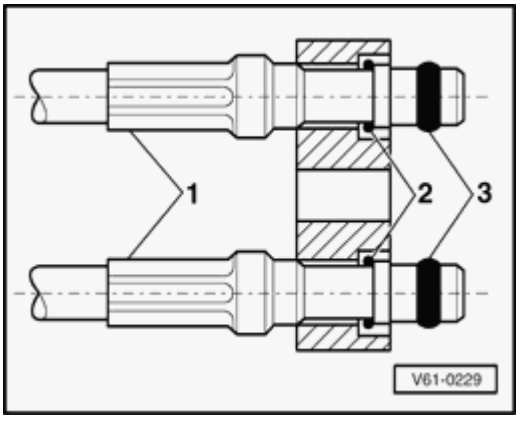


Fig. 236: Springing Washer Must Slide Completely Over Collar On Connecting Piece & Coat Sealing Ring With Hydraulic Oil And Slide It Onto Connecting Piece
Courtesy of VOLKSWAGEN UNITED STATES, INC.

NOTE:

- **Spring washer - 2 - must slide completely over collar on connecting piece - 1 -.**

- Coat sealing ring - **3** - with hydraulic oil and slide it onto connecting piece.

Hydraulic pump connection table

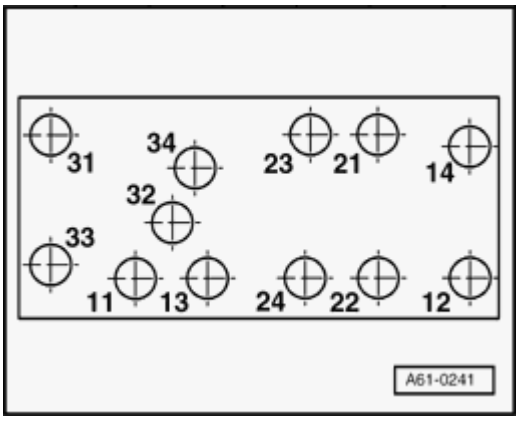


Fig. 237: Hydraulic Pump Connection Table
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Connections shown from hose side out.

1 - Main drive motor hydraulic cylinder

11 - Left piston rod side

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12 - Left piston side

13 - Right piston rod side

14 - Right piston side

2 - Bracket drive motor hydraulic cylinder

21 - Left piston rod side

22 - Left piston side

23 - Right piston rod side

24 - Right piston side

3 - Convertible top compartment cover hydraulic cylinder

31 - Left piston rod side

32 - Left piston side

33 - Right piston rod side

34 - Right piston side

Tightening torques --> **Hydraulic system - assembly overview**.

Hydraulic cylinder, removing and installing

Hydraulic lines, removing and installing --> **Hydraulic lines, removing and installing**.

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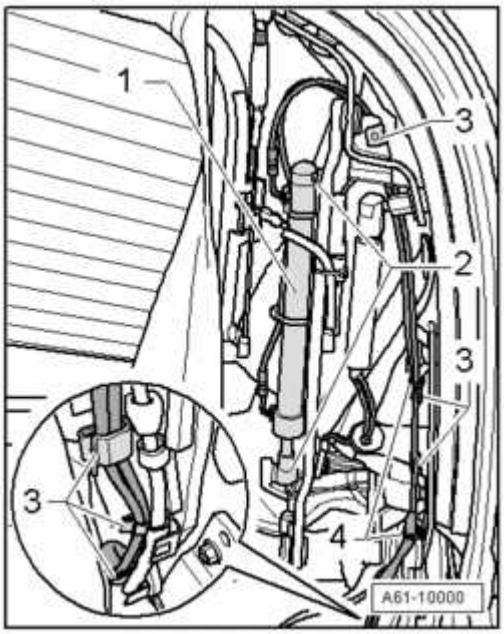


Fig. 238: Removing Hydraulic Lines And Cylinders From Convertible Top Frame
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Bracket drive motor cylinder

- Remove bracket hydraulic cylinder - **1** - from ball sockets - **2** -.
- Unclip hydraulic lines from brackets - **3** - (Qty. 6) and loosen cable ties - **4** - (Qty. 2).
- Remove hydraulic lines and cylinders from convertible top frame and place them in convertible top compartment.

Convertible top compartment cover cylinder

NOTE:

- **The convertible top compartment cover cylinder is installed as described above.**

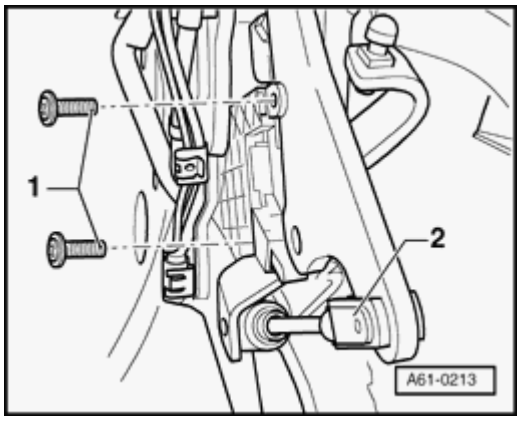


Fig. 239: Removing Convertible Top Switch Unit Bolts

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

Main drive cylinder

- Remove convertible top switch unit bolts - **1** -. The switch unit consists of Convertible Top Closed Position Switch F202 and Convertible Top Open Position Switch F171.
- Carefully remove convertible top switch unit from bolting point mounts.
- Remove main hydraulic cylinder securing pins - **2** -.
- Loosen nuts on main hydraulic cylinder bracket until they are removed from the center and can be stored in the vehicle.

Installation is reverse of removal.

Tightening torques --> **Hydraulic system - assembly overview**.

CONVERTIBLE TOP COMPARTMENT COVER LATCH

Safety precautions

CAUTION: Observe measures when disconnecting battery -->

- **27 BATTERY, STARTER, GENERATOR, CRUISE CONTROL**
- **27 BATTERY, STARTER, GENERATOR, CRUISE CONTROL for ELECTRICAL EQUIPMENT, CABRIOLET**

.

CAUTION: Secure convertible top mechanism against unintentional folding up and down during all installation work as this can lead to personal injury or vehicle damage.

Convertible top compartment cover latch - assembly overview

NOTE:

- **When working on the convertible top electrical system, disconnect vehicle battery ground strap.**

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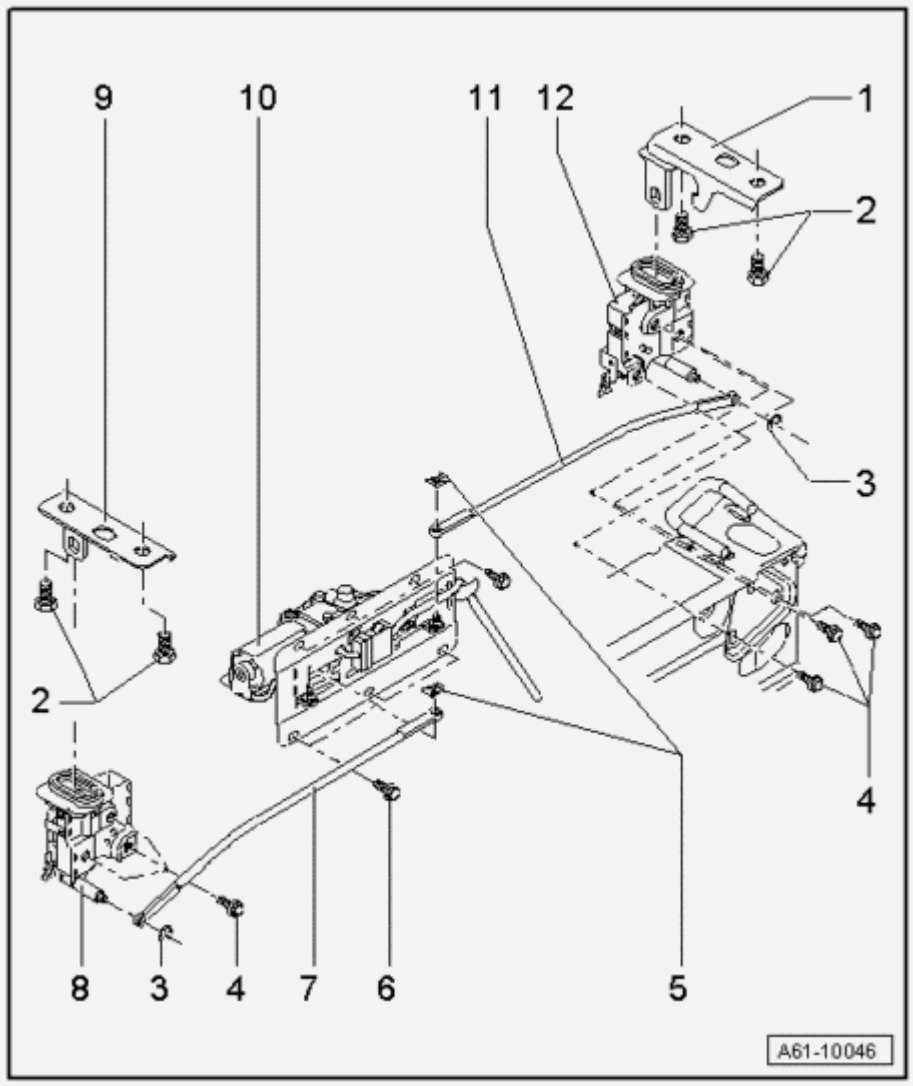


Fig. 240: Convertible Top Compartment Cover Latch - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Right tension plate

- Removing --> **Convertible top compartment cover, removing and installing**.

2 - Screw

- 21 Nm

3 - Locking washer

4 - Screw

- 21 Nm

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5 - Securing clips

6 - Lock bolt (motor/switch)

- 10 Nm

7 - Left push rod

- Preset.

8 - Left convertible top compartment cover lock

- The Left Convertible Top Compartment Cover Switch F290 is secured on the lock.
- Removing --> **Left and right convertible top compartment cover locks, removing and installing**.

9 - Left tension plate

- Removing --> **Convertible top compartment cover, removing and installing**.

10 - Convertible Top Compartment Cover Locking Motor V222 (Convertible Top Compartment Latch Switch (unlock) F293)

- Removing **Convertible top compartment cover lock, removing and installing**.
- Adjusting --> **Convertible top compartment cover, adjusting drive motor**.

11 - Right push rod

- Preset

12 - Right convertible top compartment cover lock

- The Compartment Cover Locked Right Switch 1 F200 is secured on the lock.
- Removing **Left and right convertible top compartment cover locks, removing and installing**.

Left and right convertible top compartment cover locks, removing and installing

Removing

- Remove rear seat bench and backrest -->
  - **72 - SEAT - FRAMES**
  - **72 - SEAT - FRAMES** for BODY INTERIOR - CABRIOLET

.

CAUTION: Observe safety precautions when handling pyrotechnic belt tensioners -->

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- **69 - PASSENGER PROTECTION - AIRBAGS, SEAT BELTS**
- **69 - PASSENGER PROTECTION - AIRBAGS, SEAT BELTS for BODY INTERIOR - CABRIOLET**

.

- Remove respective rear belt retractor -->
  - **69 - PASSENGER PROTECTION - AIRBAGS, SEAT BELTS**
  - **69 - PASSENGER PROTECTION - AIRBAGS, SEAT BELTS** for BODY INTERIOR - CABRIOLET

  .
- Disconnect electrical connector behind belt retractor.

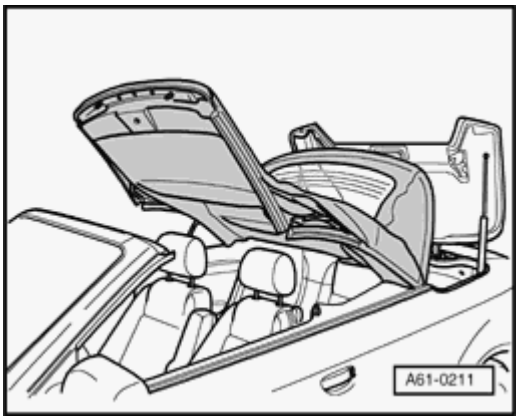


Fig. 241: Bringing Convertible Top Into Center Position
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Bring convertible top into center position.
- Remove securing clips for front convertible top compartment well trim until compartment locks are accessible.

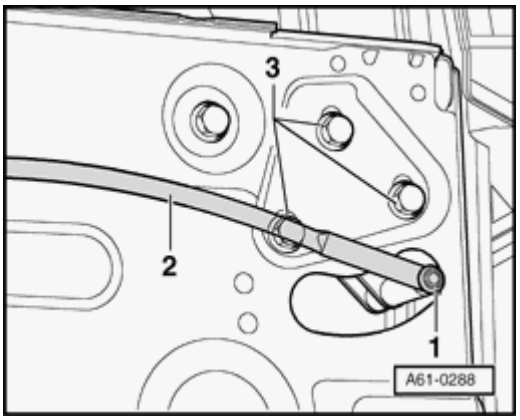


Fig. 242: Identifying Locking Washer, Push Rod & Bolts
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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- Remove locking washer - **1** -.
- Remove push rod - **2** -.
- Mark exact position of bolts - **3** - and remove.
- Remove convertible top compartment cover lock and lay it sideways,
- Disconnect switch unit electrical connector and remove switch and lock.

NOTE:

- **The connection is located behind the belt retractor.**

Installing

Installation is reverse of removal, noting the following:

- Install bolts exactly at the markings made earlier. In this way, it is not necessary to adjust the locks.
- Ensure the convertible top compartment cover aligns with the side panel when closed.
- Check whether switch works with convertible top compartment cover closed.

Tightening torques --> **Convertible top compartment cover latch - assembly overview**.

Convertible top compartment cover, adjusting tension plates

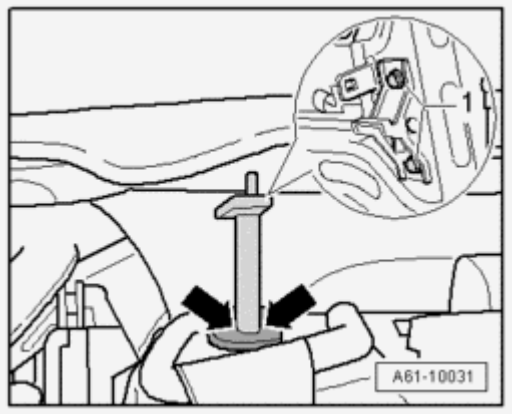


Fig. 243: Convertible Top Compartment Cover, Adjusting Tension Plates
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Check whether convertible top compartment cover tension plates lowers into center of funnel for cover locks - **arrow** -.

If necessary, loosen bolts - **1** - and adjust tension plates to lock.

Tightening torque --> **Convertible top compartment cover latch - assembly overview**.

Convertible top compartment cover lock, removing and installing

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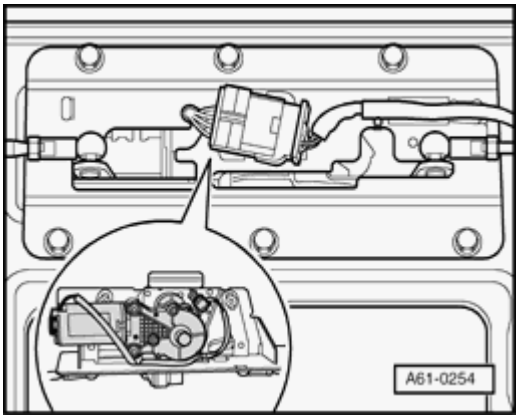


Fig. 244: Convertible Top Compartment Cover Lock, Removing/Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Removing

- Bring convertible top into center position.
- Remove convertible top compartment well front trim.
- Mark position of Convertible Top Compartment Cover Locking Motor V222 before removal.
- Remove securing spring from ball socket and press push rod of ball stud (version 1) or remove securing clips and press push rods from guide pins (version 2).
- Disconnect electrical connector.

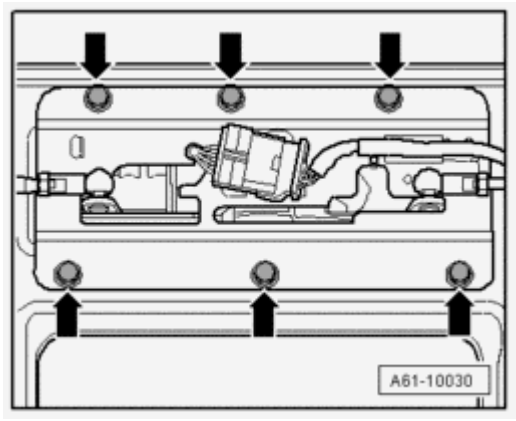


Fig. 245: Identifying Screws
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove screws - **arrows** -.
- Remove Convertible Top Compartment Cover Locking Motor V222/Convertible Top Compartment Latch Switch (unlock) F293.

Installing

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- Secure motor according to markings applied earlier and tighten bolts.

Tightening torque --> **Convertible top compartment cover latch - assembly overview**.

Convertible top compartment cover, adjusting drive motor

- Ensure there is sufficient voltage supply for the vehicle battery.

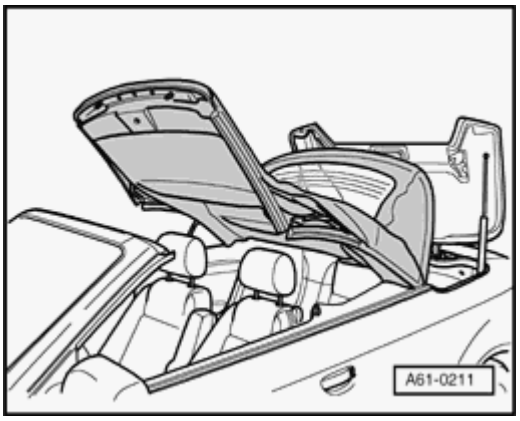


Fig. 246: Bringing Convertible Top Into Center Position
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Bring convertible top into center position.

CAUTION: The convertible top hydraulic system is depressurized after 10 minutes.

- **Risk of injury from lowering convertible top.**

- Remove securing clips for convertible top compartment well front trim until Convertible Top Compartment Cover Locking Motor V222 is accessible.

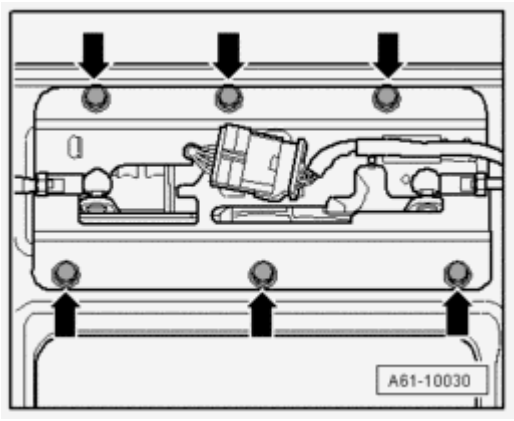


Fig. 247: Identifying Screws
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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- Loosen bolts - **arrows** -.
- Bring convertible top compartment cover lock into "end position close" --> **Convertible top emergency release** with emergency key and hold it under tension.
- Tighten bolts in this position - **arrows** -.
- Bring convertible top compartment lock into "end position open" with emergency key.

Tightening torque --> **Convertible top compartment cover latch - assembly overview**.

NOTE:

- **With "motor in end position" let push rods attach to locks.**

CONVERTIBLE TOP OPERATION ELECTRICAL COMPONENTS

Safety precautions

CAUTION: Observe measures when disconnecting battery -->

- **27 BATTERY, STARTER, GENERATOR, CRUISE CONTROL**
- **27 BATTERY, STARTER, GENERATOR, CRUISE CONTROL for ELECTRICAL EQUIPMENT, CABRIOLET**

.

CAUTION: Secure convertible top mechanism against unintentional folding up and down during all installation work as this can lead to personal injury or vehicle damage.

Convertible top operation electrical components - assembly overview

NOTE:

- **When working on the convertible top electrical system, disconnect vehicle battery ground strap.**
- **All cable ties that are loosened or cut off when removing convertible top should be re-installed in the same places during installation.**

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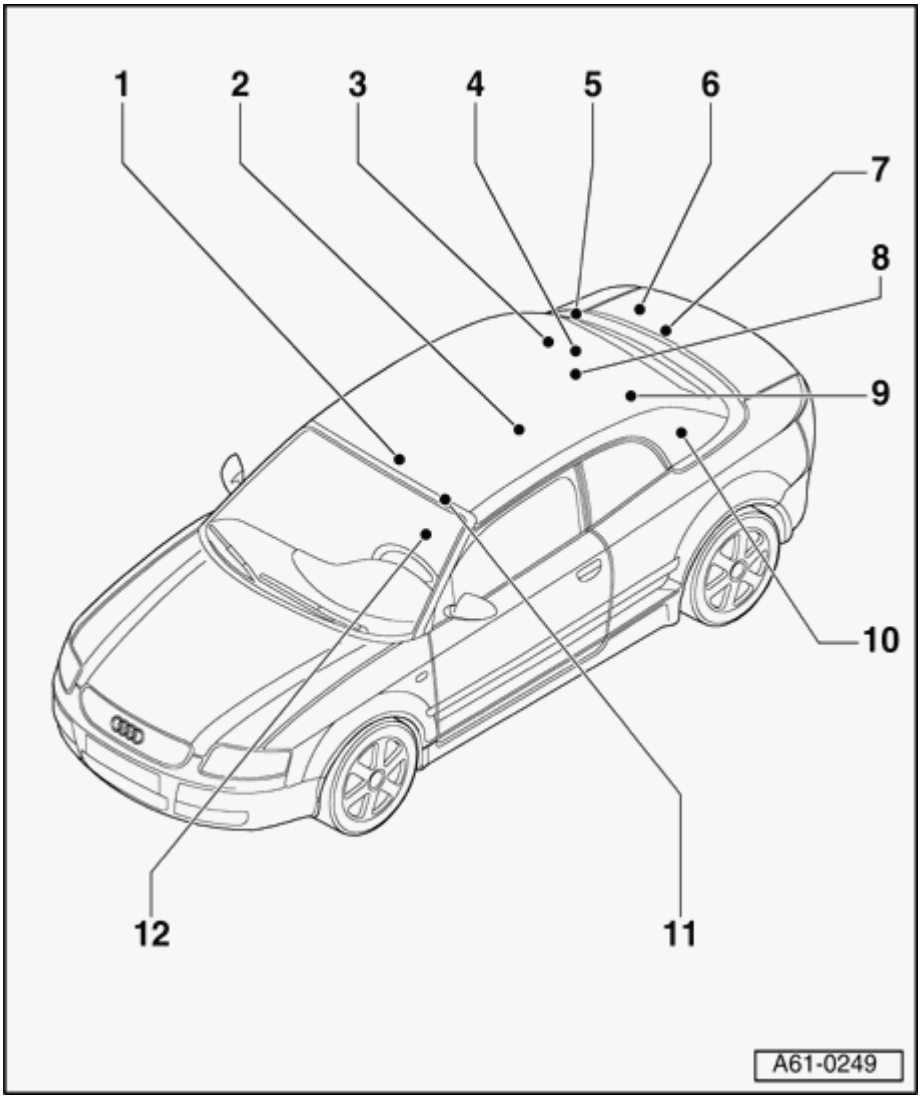


Fig. 248: Convertible Top Operation Electrical Components - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Convertible top latch

- Consists of:
- Convertible Top Locking Motor V223
- Convertible Top Lock Switch (open) F294
- Convertible Top Lock Switch (closed) F295

- Tightening torque --> **Convertible Top Front Lock Switch F172**
- Removing --> **Convertible Top Locking Motor V223/Convertible Top Lock Switch (open) F294/Convertible Top Lock Switch (closed) F295 , removing and installing**.

2 - Convertible Top Control Module J256

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- Tightening torque --> **Convertible Top Control Module J256**
- Removing --> **Convertible Top Control Module J256 , removing**.

3 - Convertible top position switch

- Consists of:
- Convertible Top Open Position Switch F171
- Convertible Top Closed Position Switch F202
- Removing --> **Convertible top position switch (Convertible Top Open Position Switch F171/Convertible Top Closed Position Switch F202), removing**.

4 - Convertible Top Frame Position Sensor G356

- Tightening torque --> **Convertible Top Frame Position Sensor G356**.
- Removing --> **Convertible Top Frame Position Sensor G356 , removing**.

5 - Compartment Cover Open Position Switch F201

- Tightening torque --> **Compartment Cover Open Position Switch F201**.
- Removing --> **Compartment Cover Open Position Switch F201 , removing**.

6 - Convertible top operation hydraulic unit

- Consists of:
- Convertible Top Hydraulic Pump V118
- Convertible Top Hydraulic Pump Relay J321
- Convertible Top Hydraulic Pump Relay 2 J588

- Power Convertible Top Valve 1 N272
- Power Convertible Top Valve 2 N341
- Power Convertible Top Valve 3 N342
- Removing --> **Hydraulic unit (hydraulic pump), removing and installing**.

7 - Convertible Top Compartment Enclosure Position Switch F292

- Removing -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

.

8 - Compartment Cover Locked Right Switch 1 F200

- Removing --> **Transmission Range (TR) Gear Monitoring Switch F290 and Compartment Cover**

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Locked Right Switch 1 F200 , removing.

9 - Convertible top compartment cover lock

- Consists of:
- Convertible Top Compartment Latch Switch (unlock) F293
- Convertible Top Compartment Cover Locking Motor V222
- Removing --> **Convertible top compartment cover lock, removing and installing**.

10 - Left Convertible Top Compartment Cover Switch F290

- Tightening torque --> **Convertible top compartment cover latch - assembly overview**.
- Removing --> **Transmission Range (TR) Gear Monitoring Switch F290 and Compartment Cover Locked Right Switch 1 F200 , removing**.

11 - Convertible Top Front Lock Switch F172

- Tightening torque --> **Convertible Top Front Lock Switch F172**
- Removing --> **Convertible Top Front Lock Switch F172 , removing**.

12 - Convertible Top Operation Switch E137

- Removing --> **Convertible Top Operation Switch E137 , removing**.

Convertible Top Front Lock Switch F172

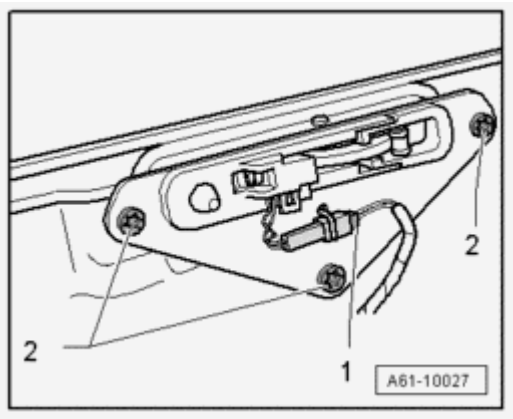


Fig. 249: Convertible Top Front Lock Switch F172
Courtesy of VOLKSWAGEN UNITED STATES, INC.

2 - 10 Nm

Convertible Top Control Module J256

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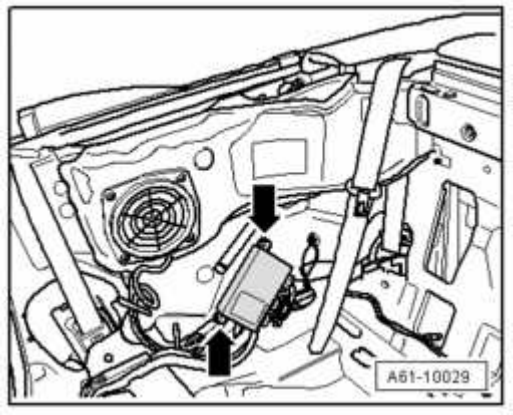


Fig. 250: Convertible Top Control Module J256
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Arrow - 2.5 Nm

Convertible Top Frame Position Sensor G356

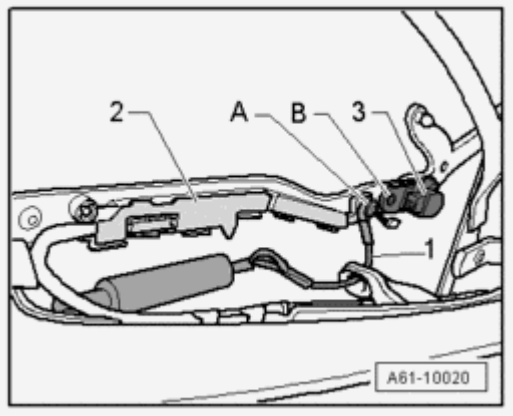


Fig. 251: Identifying Bolts, Tensioning Cable, Cable Guide & Convertible Top Frame Position Sensor G356
Courtesy of VOLKSWAGEN UNITED STATES, INC.

B - 1.5 Nm

Compartment Cover Open Position Switch F201

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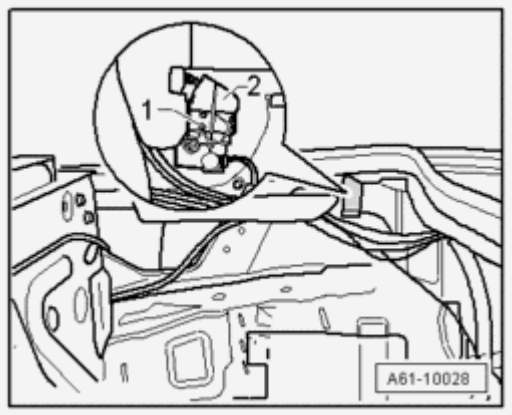


Fig. 252: Compartment Cover Open Position Switch F201
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1. 1.5 Nm

Convertible Top Locking Motor V223/Convertible Top Lock Switch (open) F294/Convertible Top Lock Switch (closed) F295 , removing and installing

Removing

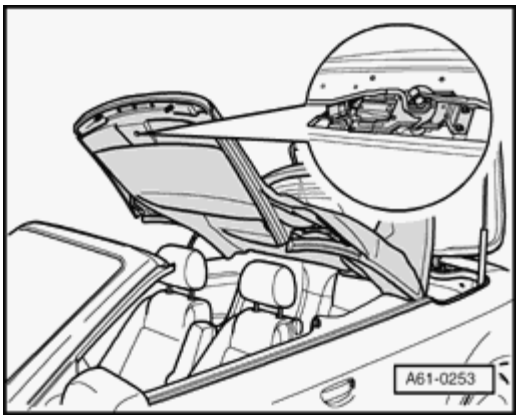


Fig. 253: Locating Convertible Top Locking Motor V223/Convertible Top Lock Switch (Open) F294/Convertible Top Lock Switch (Closed) F295
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Store convertible top in convertible top compartment.

- The convertible top compartment cover remains open.

- Remove front roof frame seal bolts.
- Carefully remove front rail trim.
- Remove ball joint wire fastener and press push rods from convertible top lock ball studs.
- Disconnect electrical connector.

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- Mark exact position of convertible top latch on rail 1.
- Remove convertible top latch bolts and remove latch.

Installing

- Ensure convertible top latch is installed in the position marked earlier.

Further installation is performed in the reverse order of removal.

Tightening torques --> **Attachments - assembly overview**.

Adjust convertible top latch --> **Convertible top locks, checking and adjusting**.

Convertible top position switch (Convertible Top Open Position Switch F171/Convertible Top Closed Position Switch F202), removing

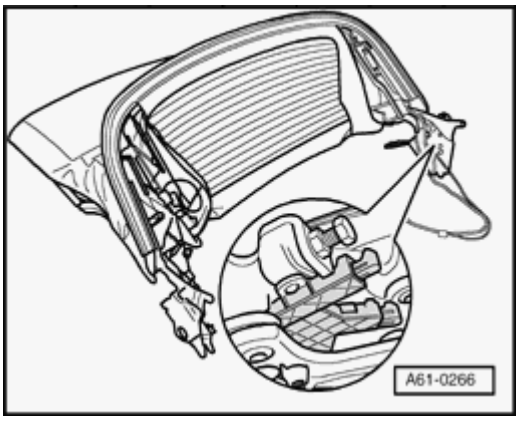


Fig. 254: Identifying Convertible Top Control Module J256
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove rear side trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .
- Disconnect electrical connector on Convertible Top Control Module J256.
- Remove convertible top cable from guides and cable ties for body wall and convertible top frame.

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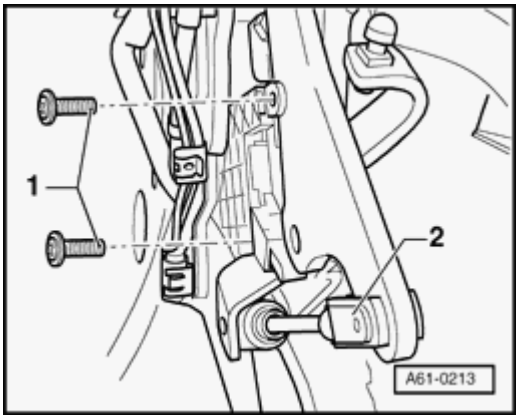


Fig. 255: Removing Convertible Top Switch Unit Bolts
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove switch bolts - **1** -.
- Carefully remove convertible top position switch from bolting point mounts.

NOTE:

- **The convertible top switch unit described is located on the right main guide.**
- **The convertible top should be brought to the appropriate position to remove respective convertible top switch unit bolt.**

Tightening torque --> **Convertible top - assembly overview**.

Convertible Top Frame Position Sensor G356 , removing

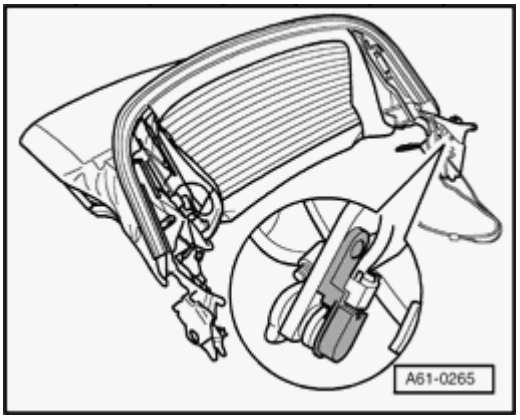


Fig. 256: Identifying Convertible Top Frame Position Sensor G356
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Bring convertible top into center position.

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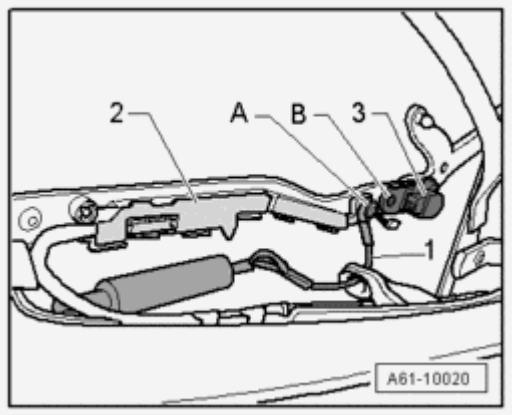


Fig. 257: Identifying Bolts, Tensioning Cable, Cable Guide & Convertible Top Frame Position Sensor G356
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Disconnect electrical connector on Convertible Top Frame Position Sensor G356 - **3** -.
- Remove bolt - **B** - and carefully remove sensor - **3** - from its mounting opening.

Installation is reverse of removal.

NOTE:

- **When installing, ensure sensor slides over convertible top linkage synchronization pins.**

Tightening torque --> **Convertible Top Frame Position Sensor G356**

Compartment Cover Open Position Switch F201 , removing

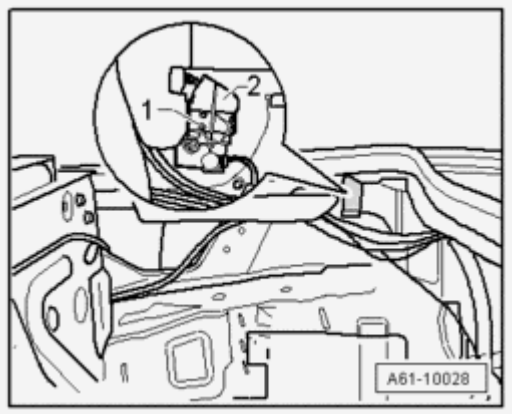


Fig. 258: Identifying Switch Bolts & Retainer
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Bring convertible top into center position.
- Remove right trim in convertible top compartment -->
  - **70 - INTERIOR TRIM**

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- **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

.

- Disconnect electrical connector.
- Remove switch bolts - **1** -.
- Carefully pry switch out of retainer - **2** -.

Installation is reverse of removal.

Tightening torque --> **Compartment Cover Open Position Switch F201**.

Convertible Top Control Module J256 , removing

- Remove rear side trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .
- Disconnect electrical connectors.

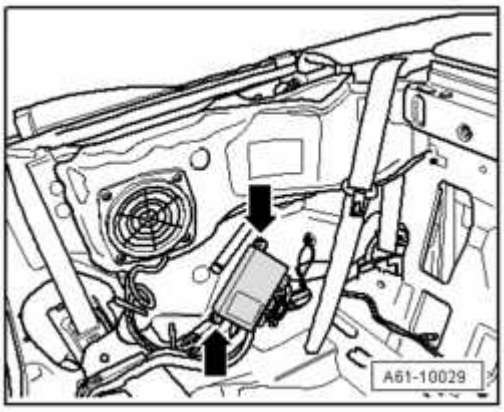


Fig. 259: Convertible Top Control Module J256
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove control module nuts - **arrows** -.

Installation is reverse of removal.

Tightening torque --> **Convertible top compartment cover latch - assembly overview**.

Transmission Range (TR) Gear Monitoring Switch F290 and Compartment Cover Locked Right Switch 1 F200 , removing

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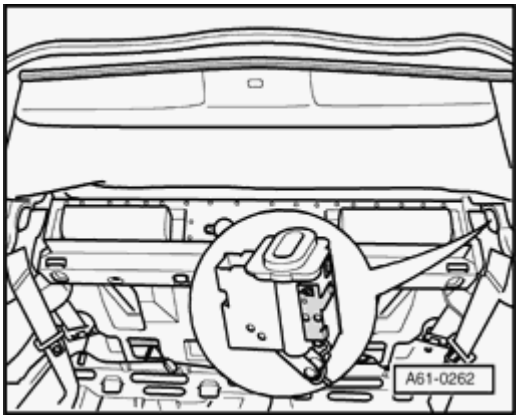


Fig. 260: Identifying Left Convertible Top Compartment Cover Switch F290
Courtesy of VOLKSWAGEN UNITED STATES, INC.

The Left Convertible Top Compartment Cover Switch F290 is installed in left convertible top compartment cover lock.

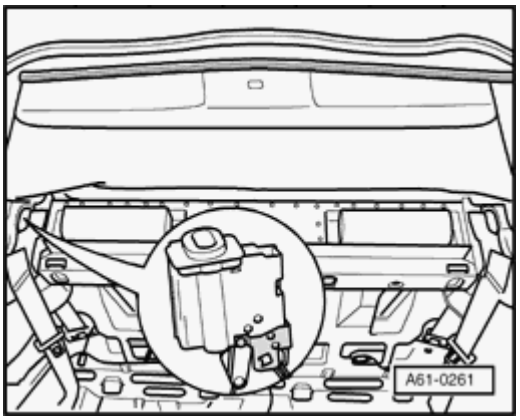


Fig. 261: Identifying Compartment Cover Locked Right Switch 1 F200
Courtesy of VOLKSWAGEN UNITED STATES, INC.

The Compartment Cover Locked Right Switch 1 F200 is installed in right convertible top compartment cover lock.

- Remove respective convertible top compartment cover lock --> **Left and right convertible top compartment cover locks, removing and installing**.

Convertible Top Front Lock Switch F172 , removing

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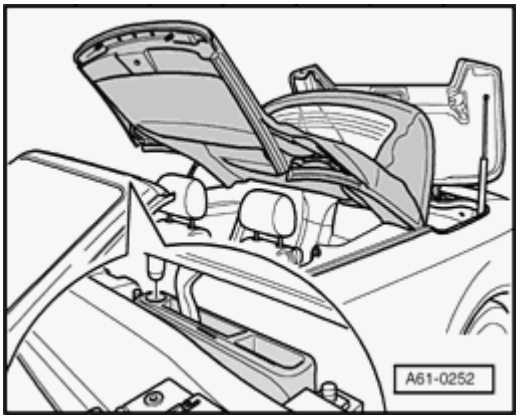


Fig. 262: Opening Convertible Top
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Open convertible top.
- Remove upper roof frame trim on inside of windshield -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

.

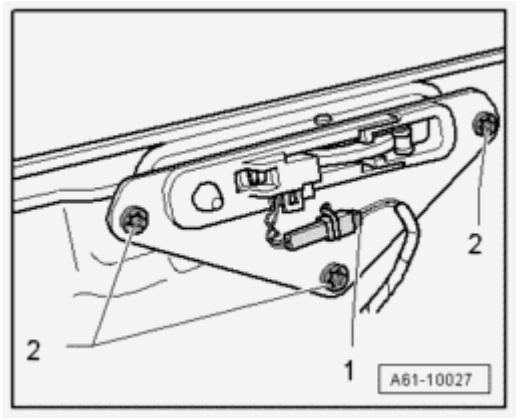


Fig. 263: Disconnecting Electrical Connector, Removing Bolts & Switch
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Disconnect electrical connector - **1** -.
- Remove bolts - **2** - and remove switch.

Installation is reverse of removal.

Tightening torque --> **Convertible top operation electrical components - assembly overview**.

Convertible Top Operation Switch E137 , removing

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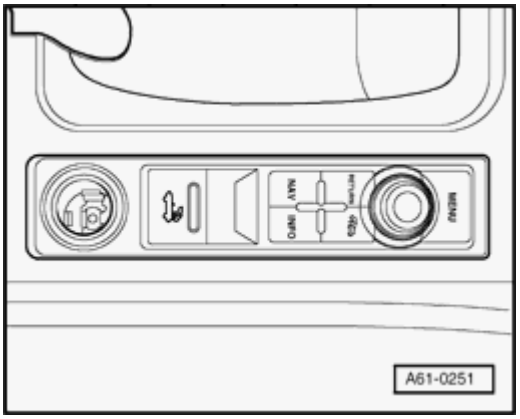


Fig. 264: Convertible Top Operation Switch E137
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Carefully pry out button carrier unit on center console.
- Disconnect electrical connector.
- Slide convertible top latch button from carrier unit.

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63 - BUMPERS

FRONT BUMPER

Front bumper (up to model year 2005) - assembly overview

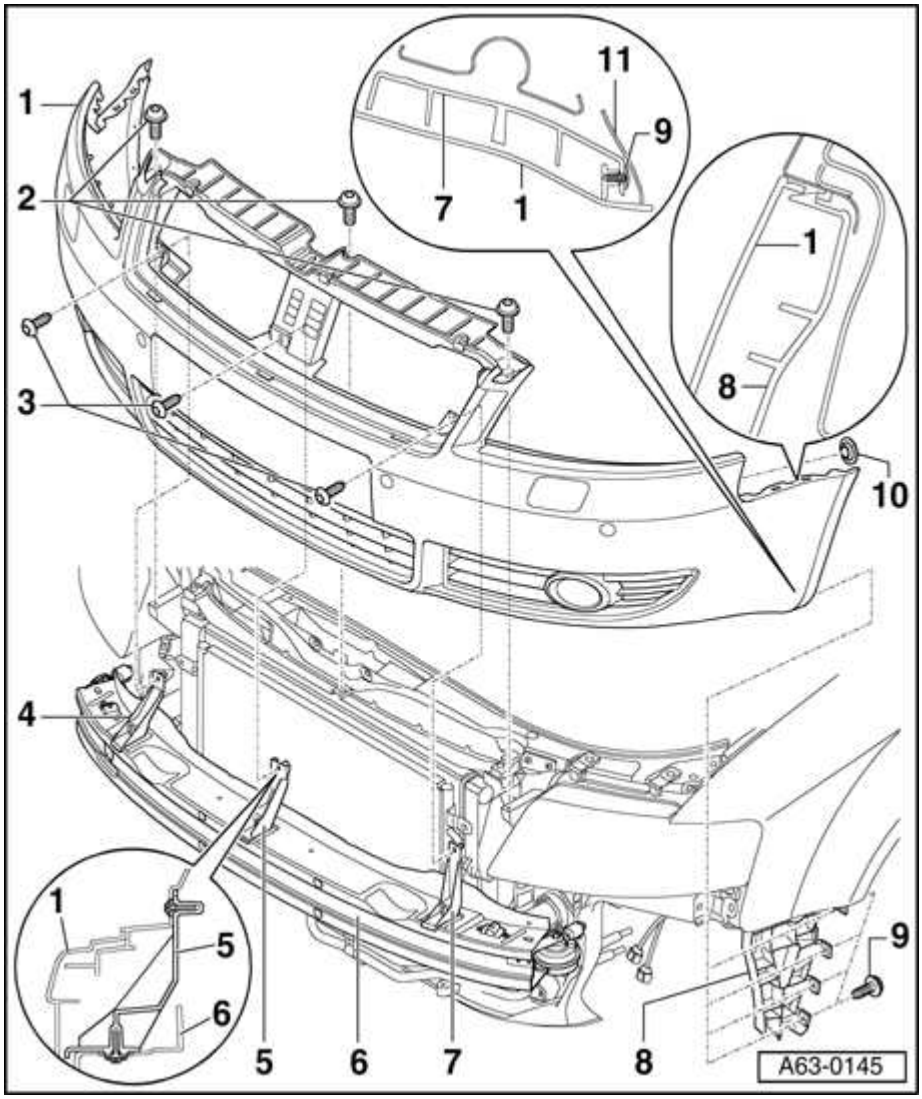


Fig. 265: Front Bumper (Up To Model Year 2005) - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Bumper cover

- Removing and installing --> **Front bumper (up to model year 2005), removing and installing**.
- Adjustment to hood --> **Bumper cover (up to model year 2005), adjusting to hood**.
- Positioning license plate mounting holes **License plate securing holes, creating**.

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- If a new part is installed, holes for license plate may only be drilled on places marked or the license plate may only be secured on the corresponding places.
- Panel gap dimensions **Panel gap dimensions**.

2 - Screw

- 6 Nm

3 - Screw

- 3 Nm

4 - Right support

5 - Center support

6 - Cross member

- Removing and installing --> **Bumper crossmember (up to model year 2005), removing and installing**.

7 - Left support

8 - Guide piece

- Removing and installing **Guide piece, removing and installing**.

9 - Screw

- 1.5 Nm

10 - Grommet

- Qty. 2
- Insert bumper cover in fender before installing **Fender grommets, installing**.

11 - Wheel housing liner

License plate securing holes, creating

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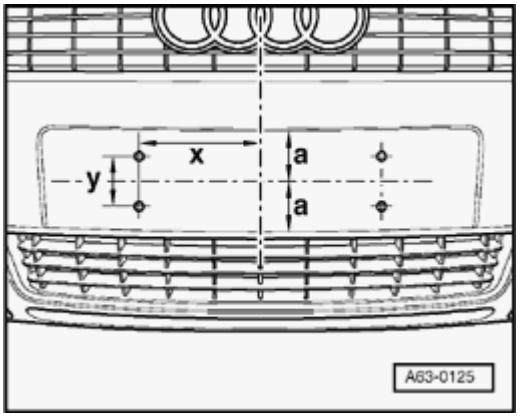


Fig. 266: License Plate Securing Holes, Creating
Courtesy of VOLKSWAGEN UNITED STATES, INC.

NOTE:

- **Four punch marks are present in the bumper cover license plate field. They must be drilled out to secure a license plate (measurements 115 x 520 mm).**

If centering punch marks are not visible, proceed as follows:

- Determine vertical bisecting line from Audi emblem to center of grill on bumper.
- Determine horizontal bisecting line:

- Dimension - **a** - = Dimension - **a** -.

- Determine mounting points for license plate symmetrically as follows:

- Dimension - **x** - = 139 mm
- Dimension - **y** - = 62 mm

Fender grommets, installing

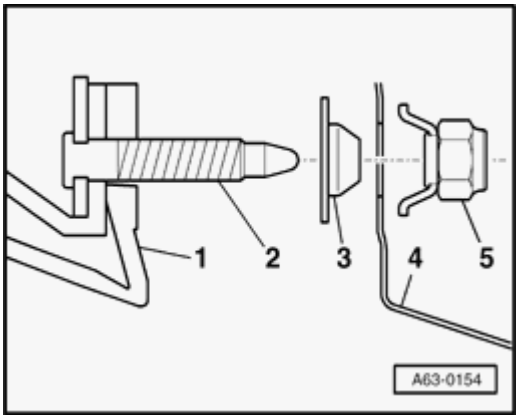


Fig. 267: Fender Grommets, Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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- Before installing bumper cover - **1** - , grommets - **3** - must slide onto threaded pins - **2** -.

4 - Fender

- Tighten nut - **5** - after installing.

5 - Nut (6 Nm)

Panel gap dimensions

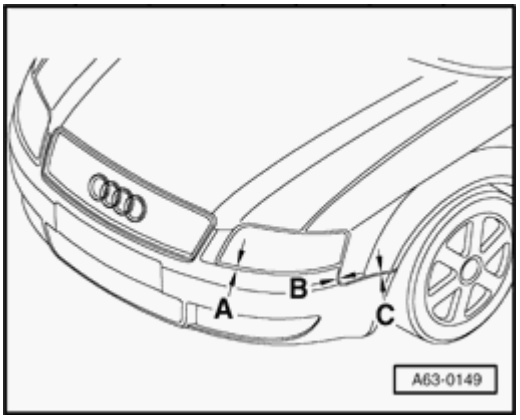


Fig. 268: Panel Gap Dimensions
Courtesy of VOLKSWAGEN UNITED STATES, INC.

NOTE:

- **Panel gap dimensions can be checked with Adjusting Gauge 3371.**
- **Dimension - A - = 2 mm + 0.5 mm.**
- **Dimension - B - = 0 mm ± 0.5 mm.**
- **Dimension - C - = 0 mm ± 0.5 mm.**

Front bumper (up to model year 2005), removing and installing

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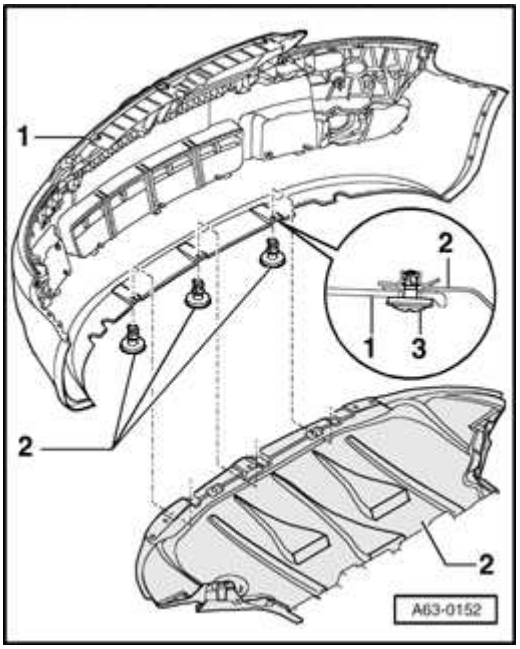


Fig. 269: Loosening Bolts Or Quick Release Fasteners
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Removing

- Loosen bolts or quick release fasteners - **3** -. The quick release fasteners behind the sound insulation - **2** - remain installed.
- The quick release fasteners remain in the bumper cover - **1** -.

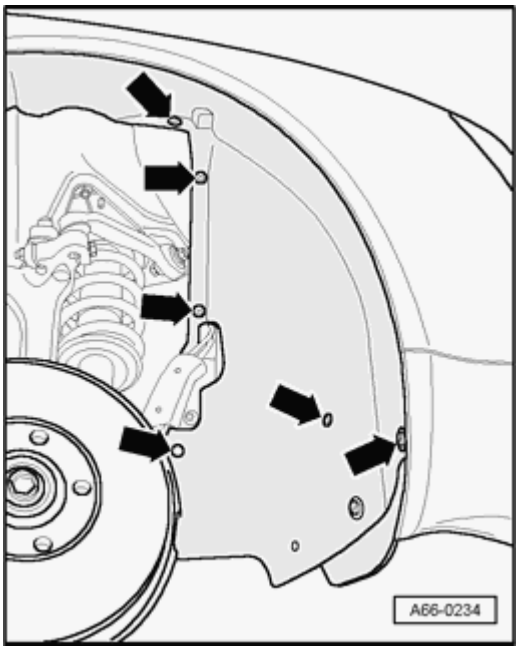


Fig. 270: Loosening Left/Right Wheelhousing Liners In Front Area
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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- Loosen left and right wheel housing liners in front area - **arrows** -.

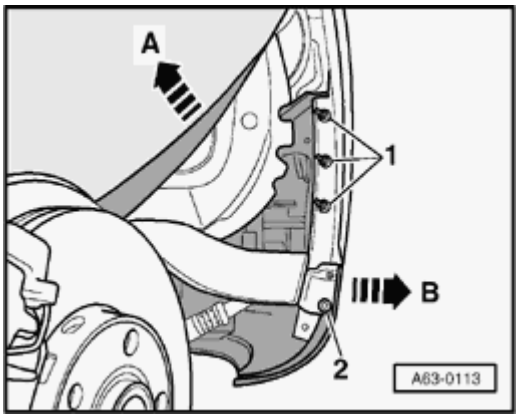


Fig. 271: Pulling Back Wheelhousing Liner & Unclipping Bumper Rear Edge From Catch
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull back wheel housing liner - **arrow A** -.
- Remove bolt - **2** - and nuts - **1** -.
- Unclip bumper rear edge from catch - **arrow B** -.
- Repeat procedure on opposite side of the vehicle.

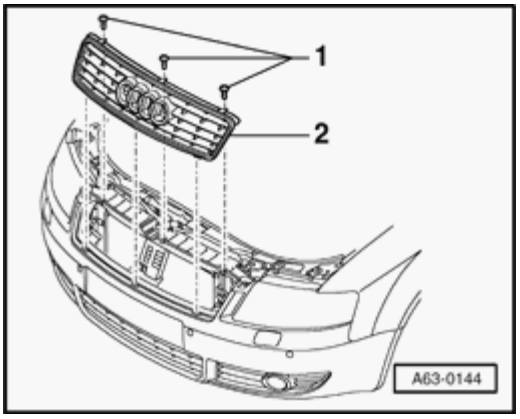


Fig. 272: Radiator Grille, Removing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts - **1** -.
- Fold decorative grille - **2** - forward slightly and pull up out of bumper.

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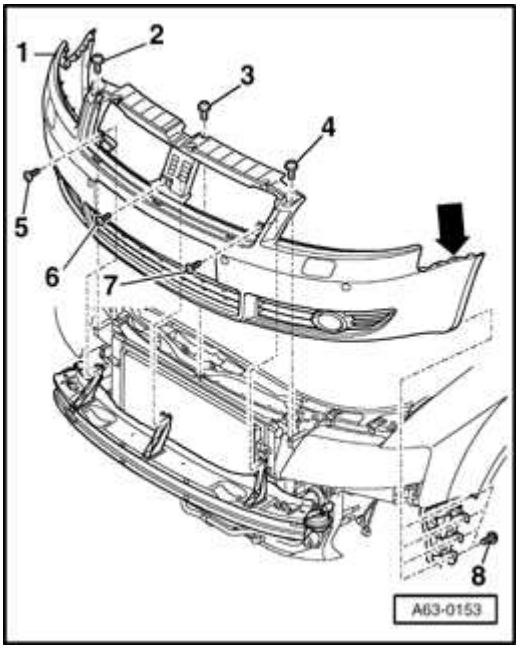


Fig. 273: Removing Bumper Cover Bolts
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Unscrew bolts - **8** -.
- Remove bolts - **2** - , - **3** - and - **4** - as well as bolts - **5** - , - **6** - and - **7** -.
- Remove side pieces - **arrow** - sideways out of guide piece.
- Pull bumper cover forward slightly.

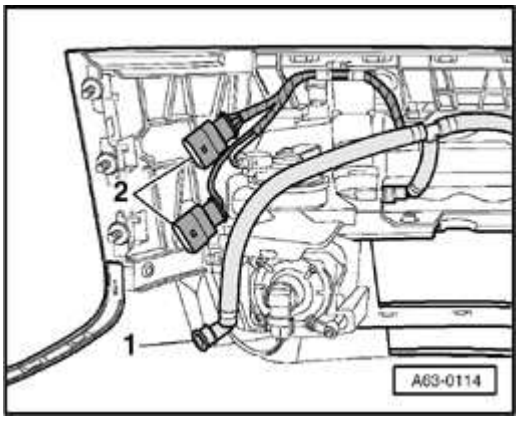


Fig. 274: Identifying Hose To Headlight Cleaning System & Bumper Cover Connector(s)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- If installed, disconnect hose - **1** - to headlight cleaning system and reserve washer fluid in a clean container for re-use.
- Disconnect connector(s) - **2** - to bumper cover.

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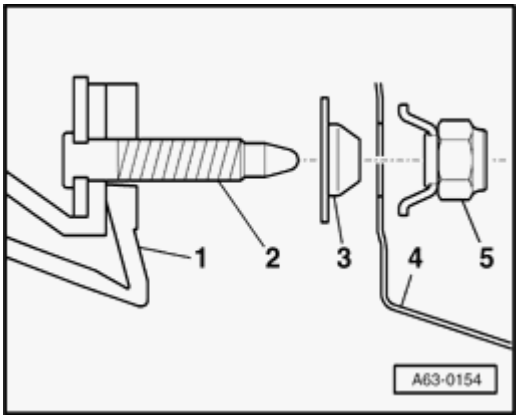


Fig. 275: Checking To See If Threaded Pins On Bumper Side Walls And Grommets In Fenders Are Present
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Installing

Installation is reverse of removal, noting the following:

NOTE:

- **Before installing bumper cover - 1 - , check to see if threaded pins - 2 - on bumper side walls and grommets - 3 - in fenders - 4 - are present.**

  - Tighten nut.

5 - Nut (5 Nm)

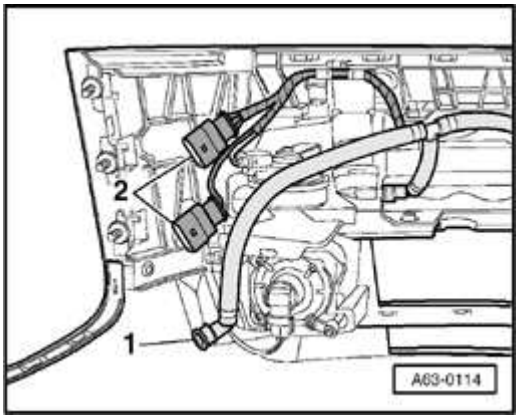


Fig. 276: Identifying Hose To Headlight Cleaning System & Bumper Cover Connector(s)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Slide bumper cover onto lock carrier and if necessary, reconnect headlamp washer system hose - **1** - and electrical connectors - **2** -.
- Slide bumper cover into installation position. Ensure threaded pins in bumper side walls engage into holes at the fenders.

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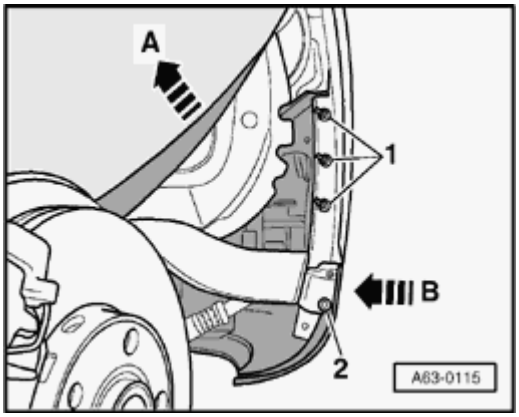


Fig. 277: Pulling Back Wheelhousing Liner & Engaging Bumper Rear Edge Into Catch
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull back wheel housing liner - **arrow A** -.
- Engage bumper rear edge into catch - **arrow B** -.
- Tighten nuts - **1** - and bolt - **2** -.
- Repeat procedure on opposite side of the vehicle.

1 - Nut (4 Nm)

2 - Screw (1 Nm)

Front bumper (from model year 2006) - assembly overview

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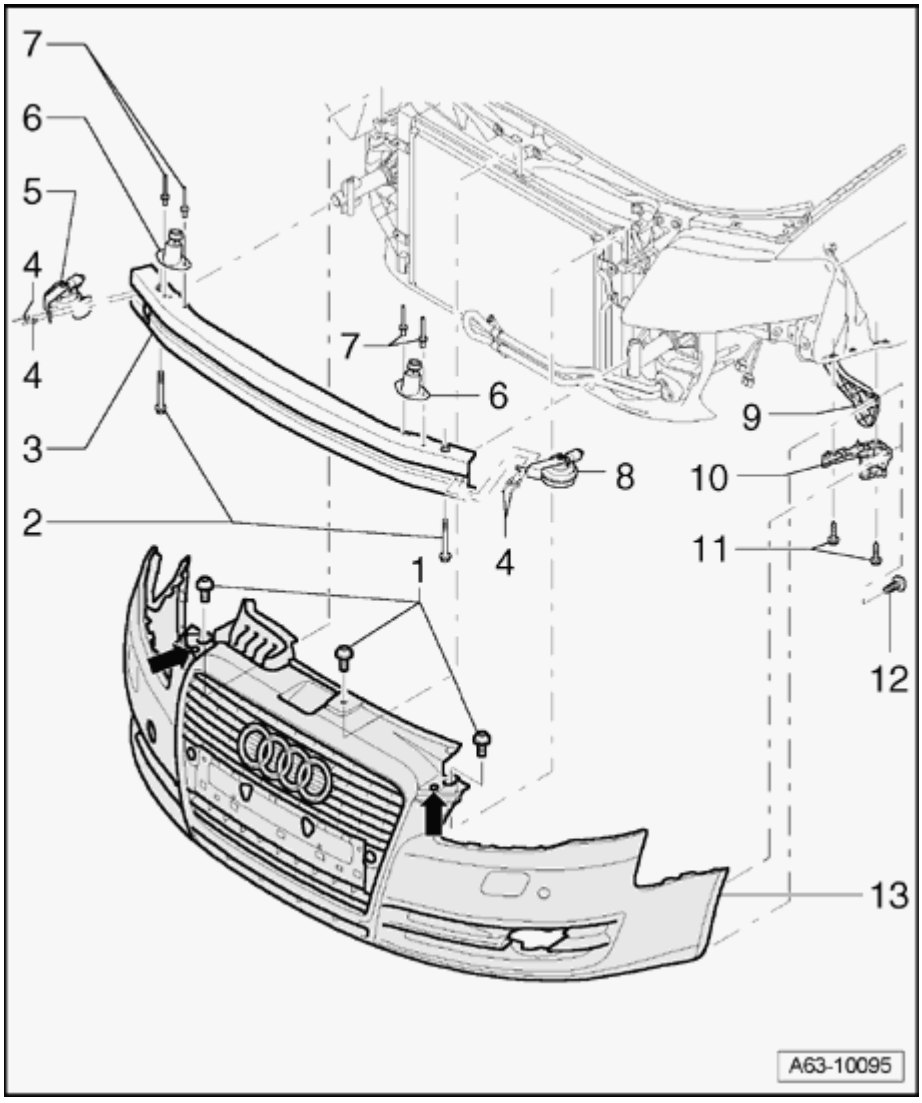


Fig. 278: Front Bumper (From Model Year 2006) - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Screw

- 6 Nm

2 - Screw

- 23 Nm

3 - Bumper crossmember

- Bumper cover removed.
- To remove, remove bolts - **2** -.
- Disconnect harness connectors to signal horns and remove bumper crossmember from impact absorbers

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toward front.

4 - Pop rivet

5 - Signal horn

- To remove, drill off rivet heads.

6 - Support piece

NOTE:

- **When turning adjustment screw, make sure mounting bracket raises.**
- **Before installing bumper cover, adjust support piece adjusting screw Adjusting support piece.**
- **Tighten adjustment screw to 2 Nm with a long Torx wrench - T30 - through holes in cover - arrows -.**
- **To disassemble, drill off pop rivet heads.**

7 - Pop rivet

8 - Signal horn

9 - Brace for fender

10 - Guide piece

- Side piece of bumper cover must be clipped in between fender and guide piece **Removing guide piece**.

11 - Screw

- 1 Nm

12 - Screw

- 1 Nm

13 - Bumper cover

NOTE:

- **While installing, the following sequence described for assembling/bolting must be observed for correct assembly.**

  - Set cover onto vehicle and first clip the left and right side piece into guide parts - **10** -.
  - Tighten nuts on fender connection **Fender bolts**.
  - Tighten bolts - **12** - to wheelhousing liner.
  - Loosely thread in bolts - **1** -.

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- Close hood and check cover for projection and recess.
- If necessary, check position of cover and tighten bolts - **12** -.
- Tighten bolt on support piece to 2 Nm **Adjusting support piece**.
- Bumper cover, removing and installing --> **Front bumper (from model year 2006), removing and installing**.
- Crossmember, removing and installing --> **Bumper crossmember, removing from cover**.

Fender bolts

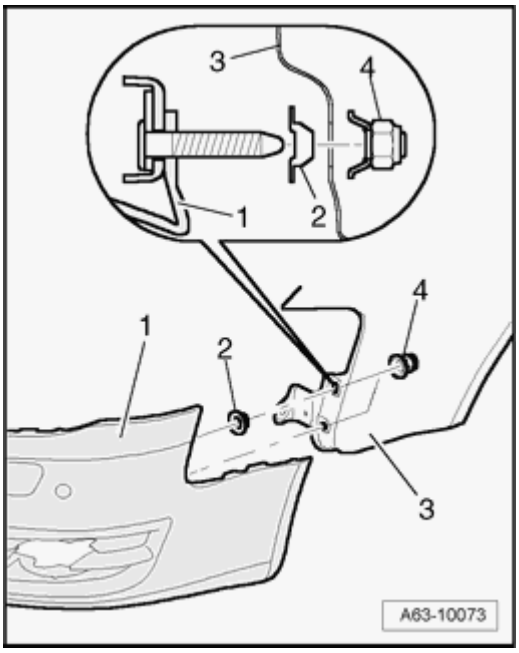


Fig. 279: Fender Bolts
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Make sure when installing that the clips - **2** - are inserted onto threaded pins.
- Tighten nuts - **4** - after inserting bumper cover - **1** - in fender - **3** -.

4 - Nut (4 Nm)

Adjusting support piece

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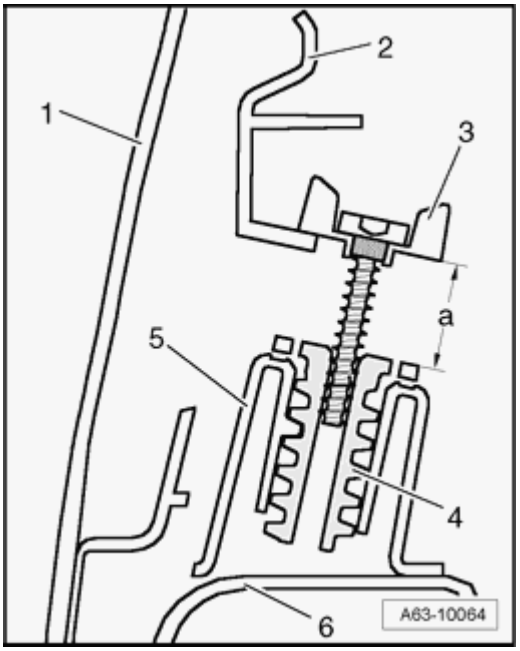


Fig. 280: Adjusting Support Piece
Courtesy of VOLKSWAGEN UNITED STATES, INC.

NOTE:

- **When turning adjustment screw - 3 - , make sure mounting bracket - 4 - raises.**
- **If mounting bracket does not raise, place a small drop (very small!) of locking compound D 000 600 A2 on the adjustment screw threads - 3 - and allow locking compound to dry.**
- **Turn adjustment screw up to dimension - a -.**
- **The mounting bracket raises when adjustment screw is turned due to the increased friction.**

- Before installing bumper cover - **1** - , adjust adjusting screw - **3** - on support piece - **5** - to dimension - **a** - = 21 mm +1 mm.
- Mounting bracket - **4** - must be screwed on completely (left-hand thread) for this.
- Adjustment screw - **3** - and mounting bracket - **4** - belong to delivery casing for support piece and are not replacement parts.
- When installing bolt - **3** - , mounting bracket - **4** - unscrews and holds the carrier piece - **2** - of bumper cover - **1** - in the designated position.
- The support piece - **5** - is secured to bumper cover - **6** - with pop rivets.

Clamping pins for noise insulation

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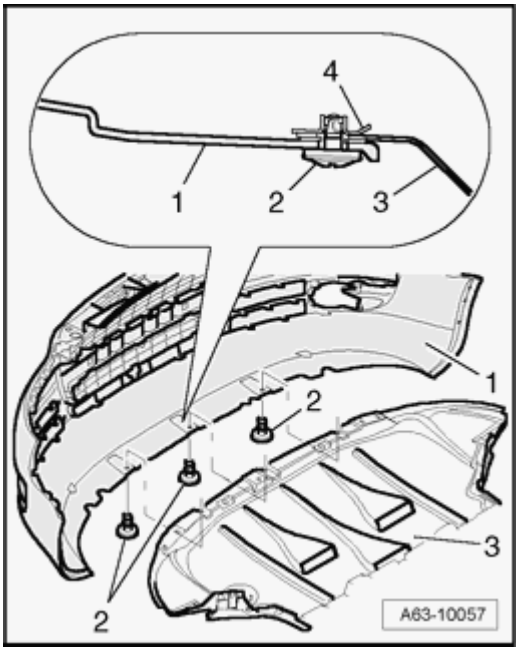


Fig. 281: Clamping Pins For Noise Insulation
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- When removing bumper cover - **1** - , turn clamping pins - **2** - 180° and remove from spring nut - **4** - on sound insulation - **3** -.

Removing guide piece

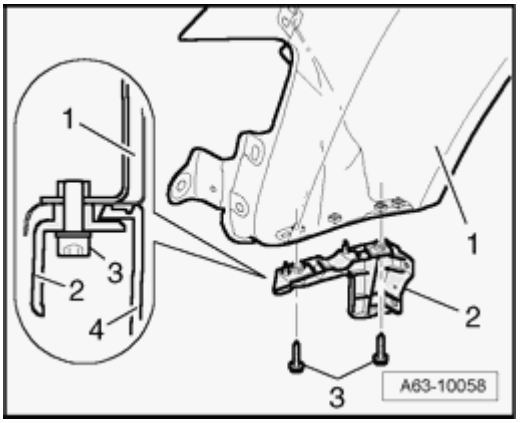


Fig. 282: Removing Guide Piece
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Bumper cover removed
- Unscrew bolts - **3** - and pull guide piece - **2** - downward out of fender - **1** -.
- When installing, bumper cover - **4** - must engage cleanly in guide piece.

Brace for wheelhousing liner

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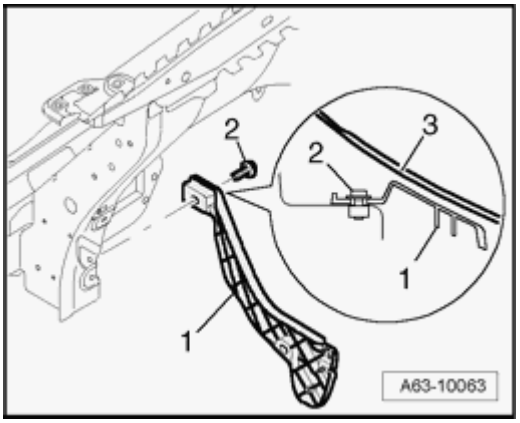


Fig. 283: Brace For Wheelhousing Liner
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- For mounting front wheelhousing liner - **3** -.
- When installing brace - **1** - , tighten bolt - **2** -.

2 - Screw (10 Nm)

Front bumper (RS4) - assembly overview

NOTE:

- **Removal and installation is done the same as the standard bumper from model year 2006.**
- **Only differing steps are described.**

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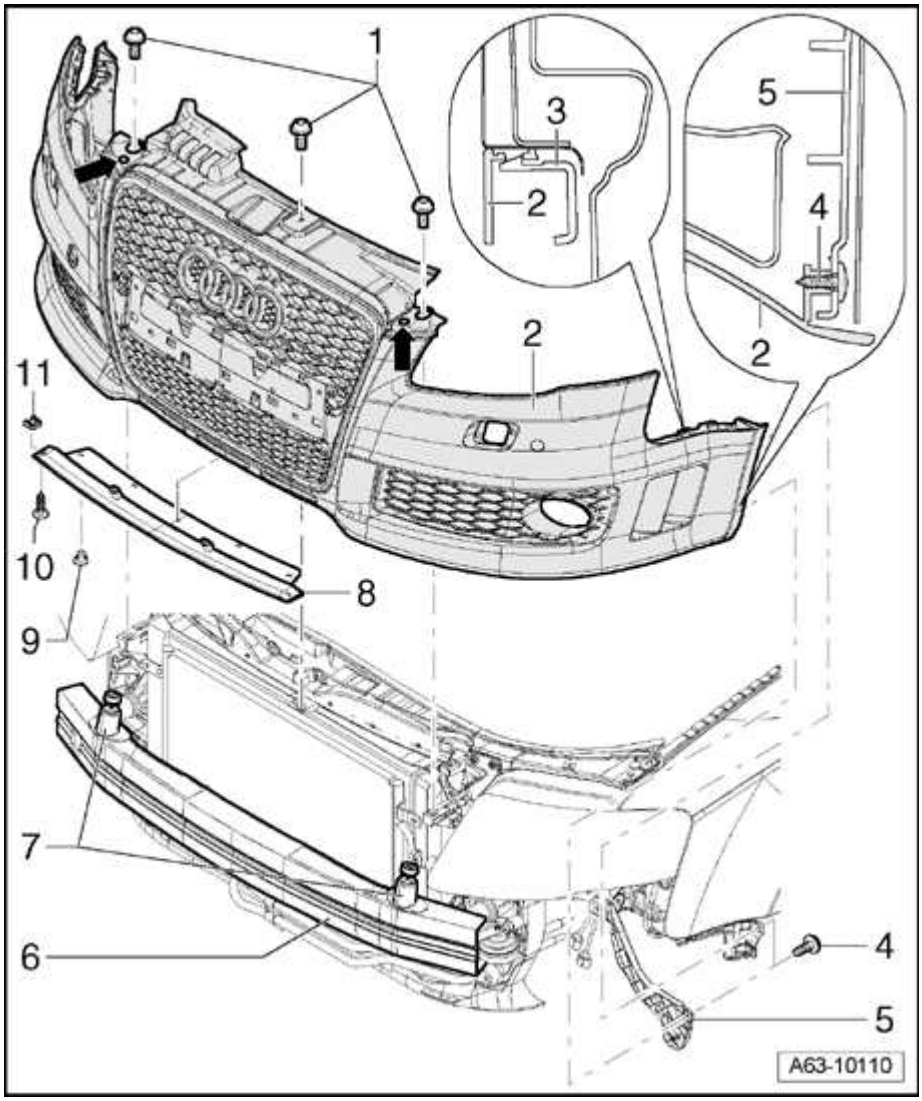


Fig. 284: Front Bumper (RS4) - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Screw

- 6 Nm

2 - Bumper cover

- Removal and installation as with standard production.

NOTE:

- **While installing, the following sequence described for assembling/bolting must be observed for correct assembly.**

  - Set cover onto vehicle and first clip the left and right side piece into guide parts - **10** -.

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- Tighten nuts on fender connection **Fender bolts**.
- Tighten bolts - **12** - to wheelhousing liner.
- Loosely thread in bolts - **1** -.

- Close hood and check cover for projection and recess.
- If necessary, check position of cover and tighten bolts - **4** -.
- Tighten bolt on support piece to 2 Nm **Adjusting support piece**.
- Bumper cover, removing and installing --> **Front bumper (from model year 2006), removing and installing**.

- Crossmember, removing and installing --> **Bumper crossmember, removing from cover**.

3 - Guide piece

4 - Screw

- 1 Nm

5 - Brace for fender

6 - Bumper crossmember

7 - Support piece

NOTE:

- **When turning adjustment screw, make sure mounting bracket raises.**
- **Before installing bumper cover, adjust support piece adjusting screw Adjusting support piece.**
- **Tighten adjustment screw to 2 Nm with a long Torx wrench - T30 - through holes in cover - arrows -.**
- **To disassemble, drill off pop rivet heads.**

8 - Front spoiler

- Remove screws - **10** -.
- Slide spoiler back slightly out of bumper cover guides.
- Remove spoiler downward.

9 - Expanding rivet

10 - Screw

- 2 Nm

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11 - Spring nut

Air intake grille for S4

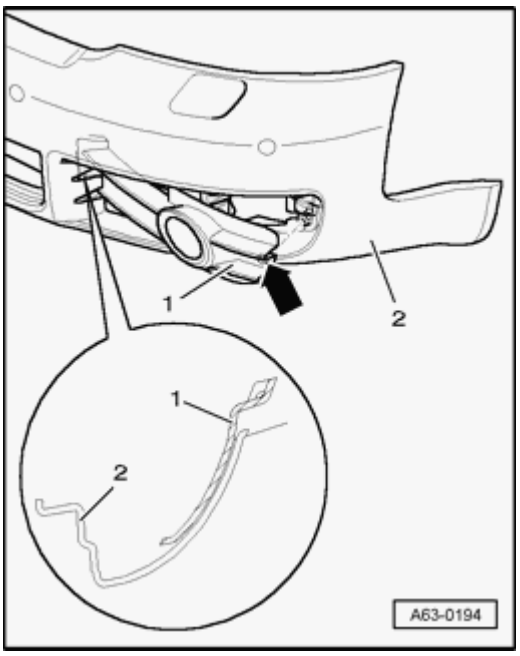


Fig. 285: Air Intake Grille For S4
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolt - **arrows** -.
- Press air intake grille - **2** - on the inside of bumper cover - **2** - as shown toward rear out of locking mechanism.
- Remove air intake grille forward from bumper cover.

Front bumper (from model year 2006), removing and installing

Removing

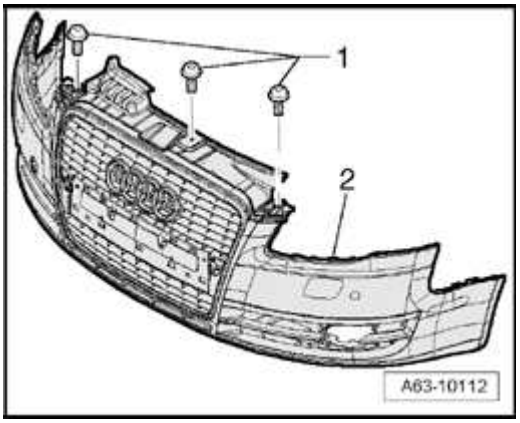


Fig. 286: Front Bumper (From Model Year 2006) Remove/Install Components

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts - **1** - from top of bumper cover - **2** -.

Only on RS4

- Remove bolts - **1** - from top of bumper cover - **2** -.
- Remove screw - **4** - from inside of fender - **3** -.

NOTE:

- **The bolt is only accessible after driving wheel housing liner back.**

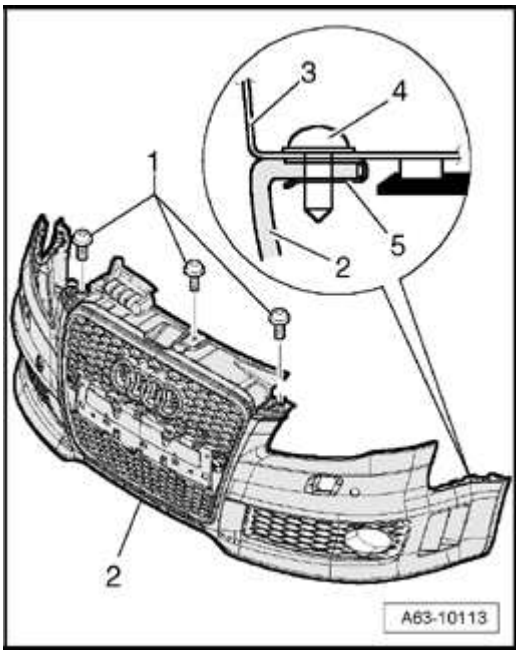
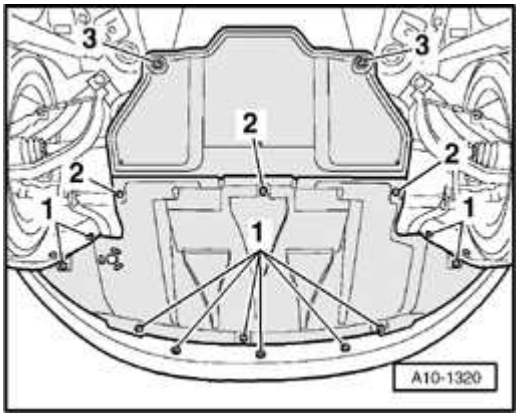


Fig. 287: Identifying Spring Nut Placed On Bumper Cover
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Spring nut - **5** - placed on bumper cover.



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Fig. 288: Identifying Quick-Release Fasteners And Noise Insulation
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts and quick release screws - **1** - and - **2** -. Rear noise insulation (quick release screws - **3** -) remains installed.

NOTE:

- **For the sake of a better illustration, the wheels are shown removed in the illustrations.**

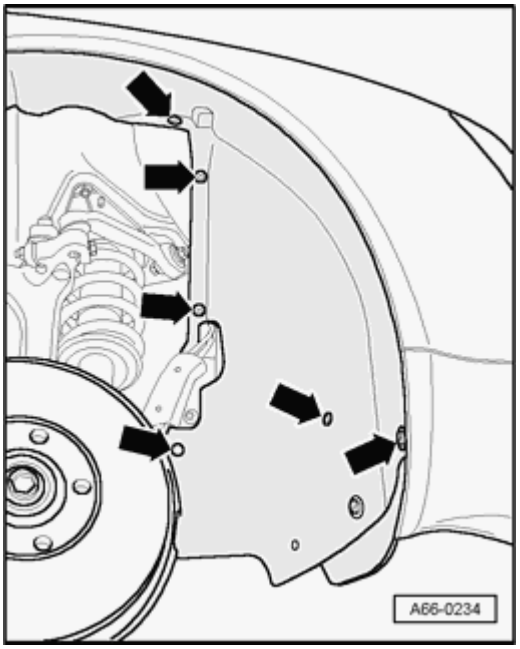


Fig. 289: Loosening Left/Right Wheelhousing Liners In Front Area
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Loosen left and right wheel housing liners in front area - **arrows** -.

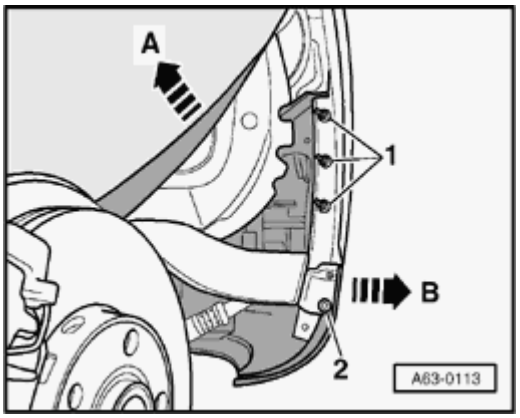


Fig. 290: Pulling Back Wheelhousing Liner & Unclipping Bumper Rear Edge From Catch
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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- Pull back wheel housing liner - **arrow A** -.
- Remove bolt - **2** - and nuts - **1** -.

NOTE:

- **On RS4 models, you must also loosen a screw on the inside of the fender. Front bumper (from model year 2006), removing and installing.**

- Unclip bumper rear edge from catch - **arrow B** -.
- Repeat procedure on opposite side of the vehicle.

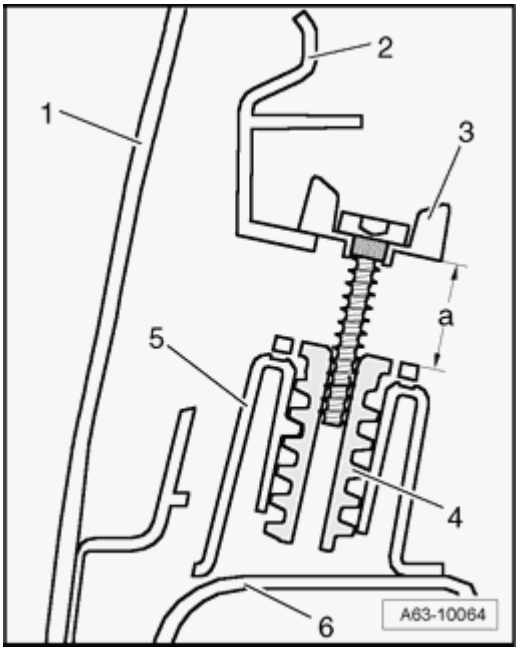


Fig. 291: Adjusting Support Piece
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Loosen adjustment screw - **3** - at support piece - **5** -.

The bracket - **4** - retracts into the support piece - **5** - and frees up the bumper cover - **1** -.

- Pull bumper cover forward slightly.

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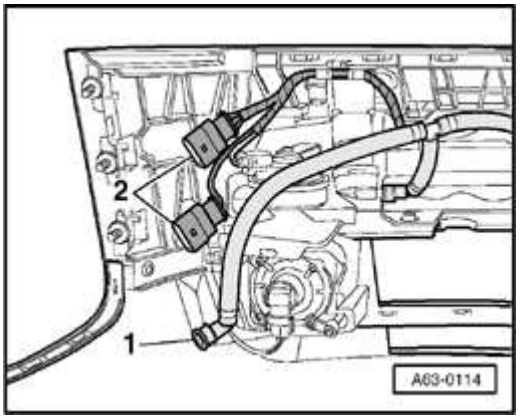


Fig. 292: Identifying Hose To Headlight Cleaning System & Bumper Cover Connector(s)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- If installed, disconnect hose - **1** - to headlight cleaning system and reserve washer fluid in a clean container for re-use.
- Disconnect harness connector(s) - **2** - to bumper.

Installing

Installation is reverse of removal, noting the following:

NOTE:

- **Before installing bumper, check to see if threaded pins at bumper rear edge as well as expanding clips and sleeves in the fenders are present.**

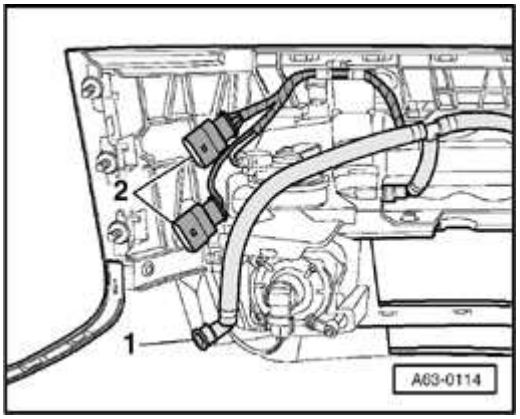


Fig. 293: Identifying Hose To Headlight Cleaning System & Bumper Cover Connector(s)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Slide bumper cover onto impact absorber and re-connect headlight cleaning system hose - **1** - and electrical harness connectors - **2** -.
- Slide bumper cover into installation position. Ensure threaded pins in bumper side walls engage into holes at the fenders.

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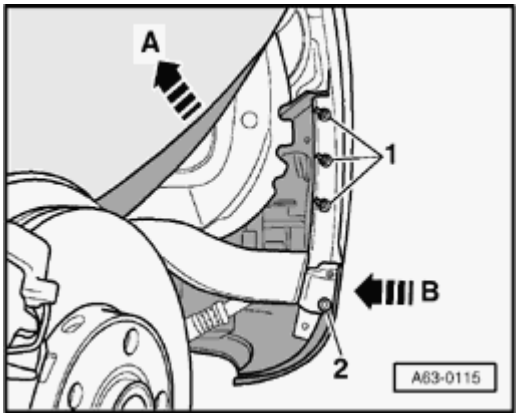


Fig. 294: Pulling Back Wheelhousing Liner & Engaging Bumper Rear Edge Into Catch
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull back wheel housing liner - **arrow A** -.
- Engage bumper rear edge into catch - **arrow B** -.
- Tighten nuts - **1** - and bolt - **2** -.

1 - Nut (4 Nm)

2 - Screw (1 Nm)

- Repeat procedure on opposite side of the vehicle.

Further installation is performed in the reverse order of removal.

Radiator grille (from model year 2006) - assembly overview

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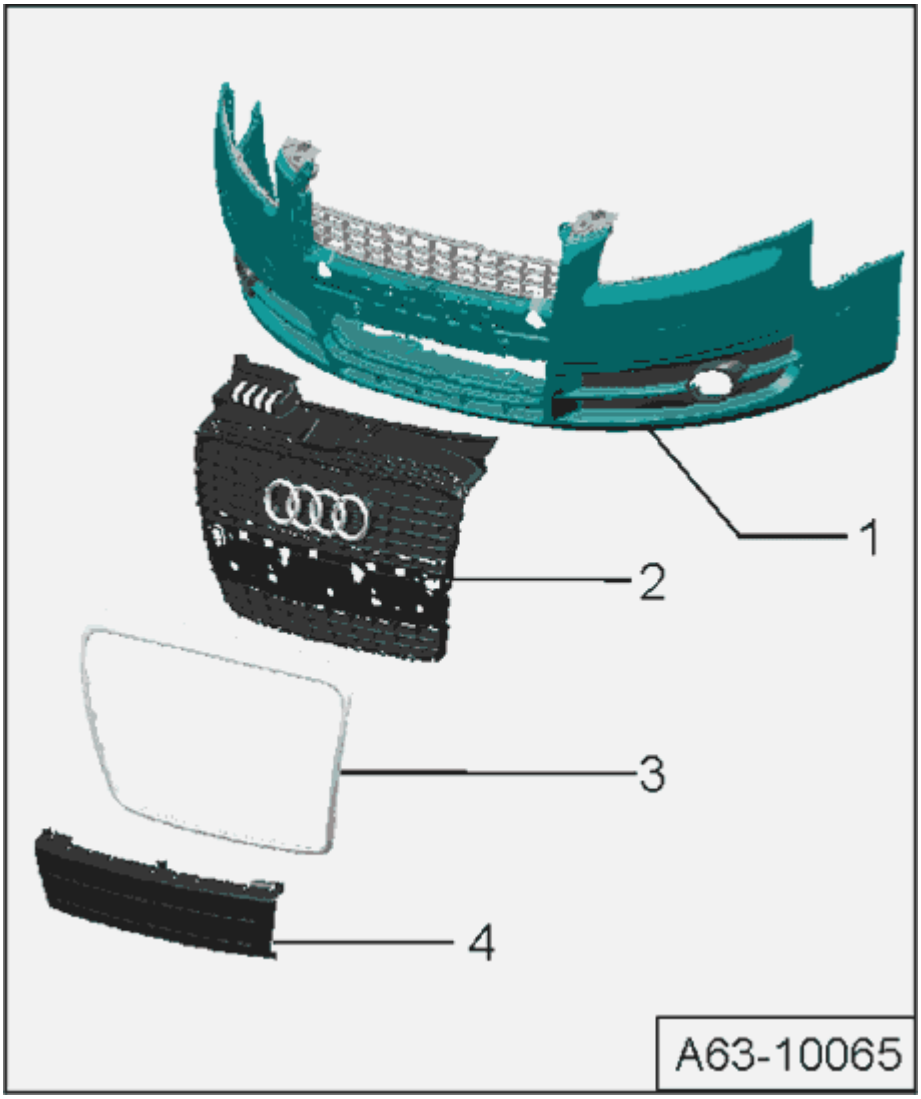


Fig. 295: Radiator Grille (From Model Year 2006) - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Bumper cover

2 - Radiator grille

- Bumper cover removed.

3 - Trim for radiator grille

4 - License plate holder

- Bumper cover not removed.
- To disassemble from rear side, unclip from radiator grille.

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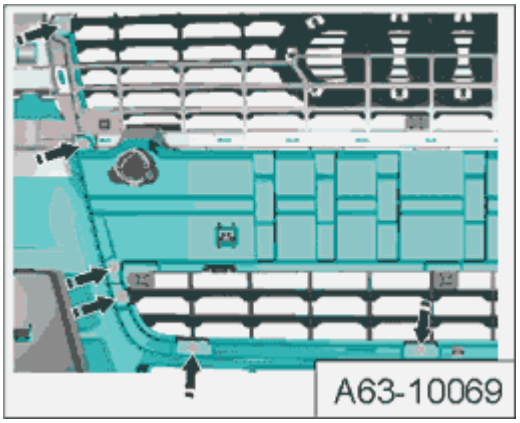


Fig. 296: Removing Radiator Grille
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Removing radiator grille

- Bumper cover removed.
  - Remove bolts - **arrows** - around edge and pull radiator grille from bumper cover.

Arrow - 1.5 Nm

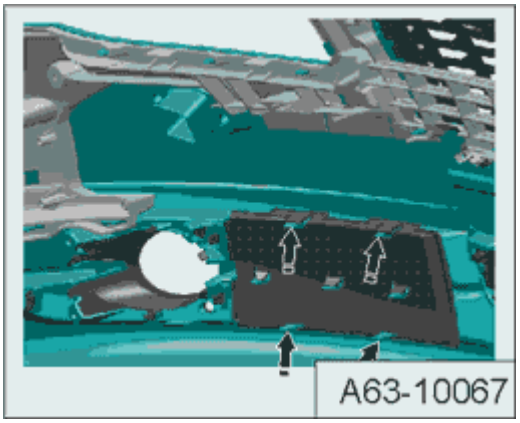


Fig. 297: Removing Panel For Fog Lights
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Removing panel for fog lights

- Disengage locking mechanisms - **arrows** - and pull off panel toward vehicle interior.

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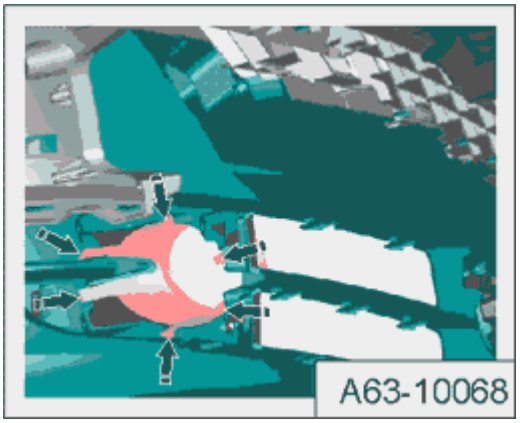


Fig. 298: Disengaging Fog Lights Locking Mechanisms
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Fog lights removed.

- Disengage locking mechanisms - **arrows** - and pull off panel toward outside.

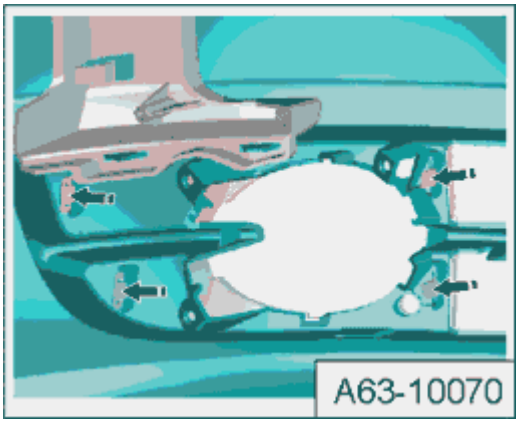


Fig. 299: Disengaging Covers Locking Mechanisms
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Covers are divided into two parts.

Disengage locking mechanisms - **arrows** - and pull off cover toward outside.

Bumper cover (up to model year 2005), adjusting to hood

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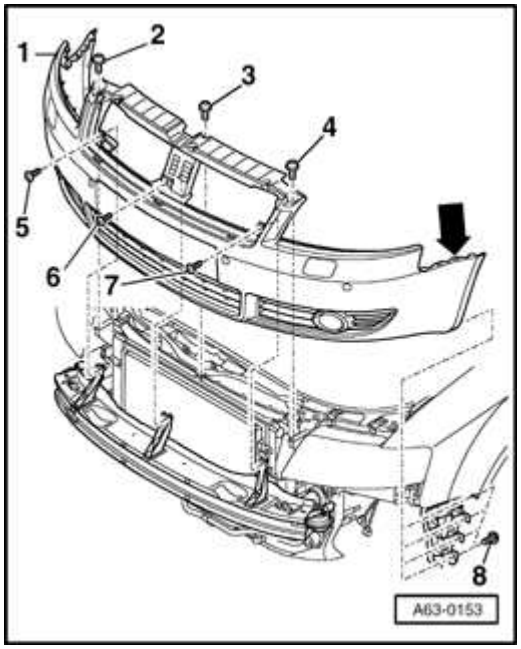


Fig. 300: Removing Bumper Cover Bolts
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Position bumper cover, clip in side flanks - **arrow** - and secure with bolts - **8** -.
- Loosely install bolt - **3** -.
- Tighten bolts - **2** - , - **4** - , - **5** - , - **6** - and - **7** -.

NOTE:

- **Note different torque values.**

- Close hood.
- Check projection and recess of bumper cover to hood.
- If OK, tighten all bolts to torque.
- If not OK, open hood.

- Loosen bolt(s) - **2** - and/or - **4** - , correct top of bumper cover accordingly and re-tighten bolt to torque.
- Tighten bolt - **3** -.

2 - Screw (6 Nm)

3 - Screw (6 Nm)

4 - Screw (6 Nm)

5 - Screw (3 Nm)

6 - Screw (3 Nm)

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7 - Screw (3 Nm)

Bumper crossmember (up to model year 2005), removing and installing

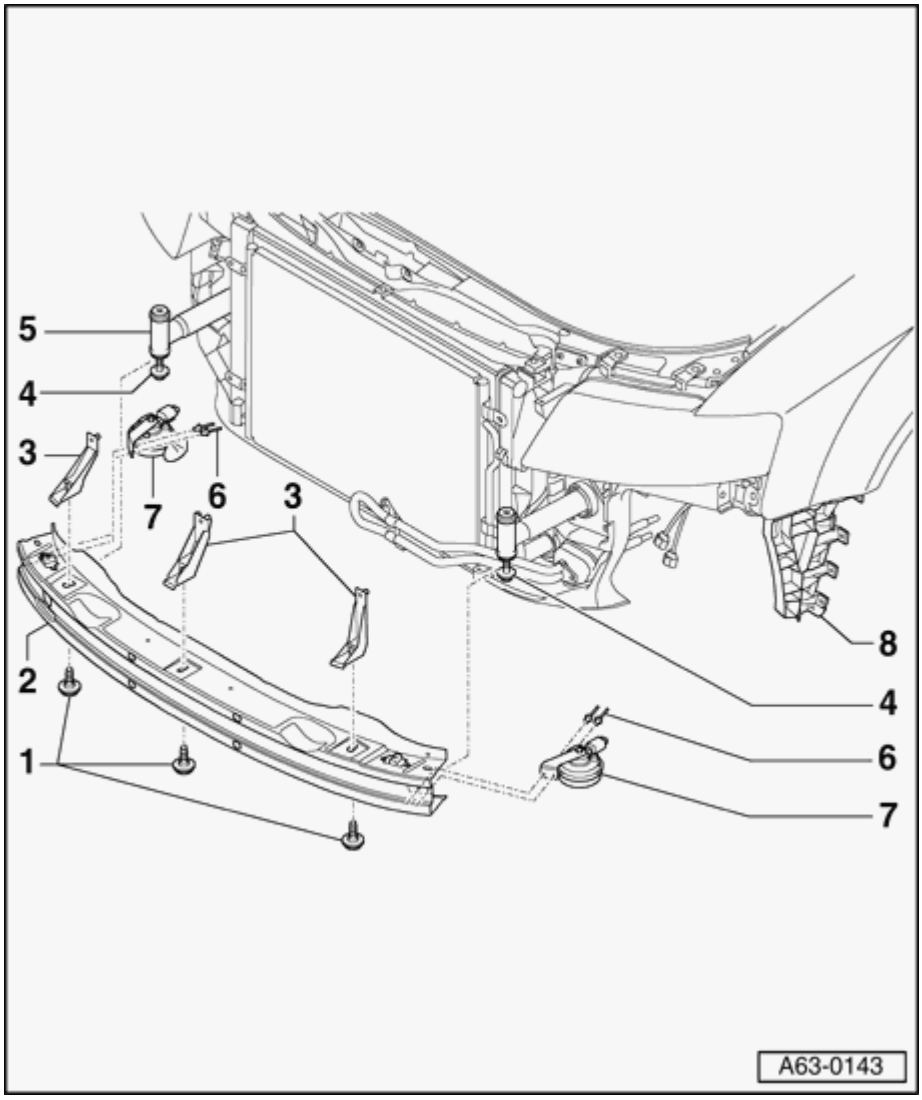


Fig. 301: Bumper Crossmember (Up To Model Year 2005) Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Bolts

- 3 Nm

2 - Cross member

- Mount on impact absorber --> **Bumper crossmember to impact absorber mount**.
- Bumper cover, removing --> **Front bumper (up to model year 2005), removing and installing**.
- Disconnect electrical connectors to signal horn.

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3 - Supports

4 - Screw

- 26 Nm

5 - Impact absorber

- Removing --> **Impact absorber, removing and installing**.

6 - Pop rivet

7 - Signal horn

- To remove, drill out hollow rivet heads and drive out rivet shafts.

8 - Guide piece

- Removing and installing **Guide piece, removing and installing**.

Guide piece, removing and installing

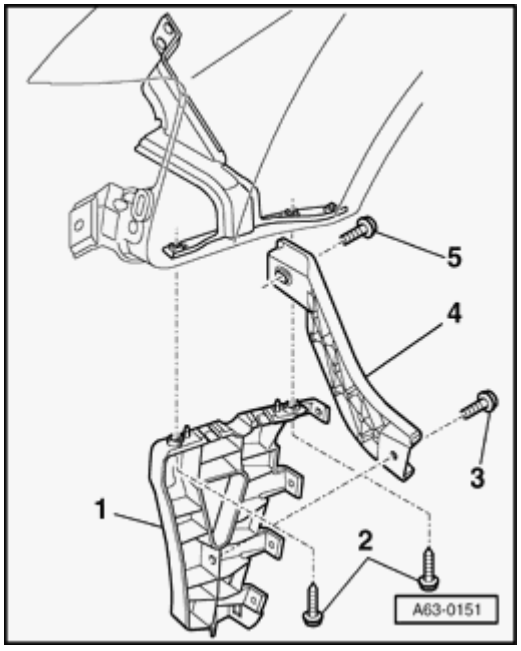


Fig. 302: Guide Piece Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- When installing guide piece - **1** - , tighten bolts in the following sequence.
- Tighten bolt - **2** - first.
- Then secure brace - **4** - with bolt - **3** -.

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- Tighten bolt - **5** - last.

2 - Screw (4 Nm_

3 - Screw (1 Nm)

5 - Screw (6 Nm)

Bumper crossmember, removing from cover

- Bumper cover removed.
- Remove signal horn - **4** -.

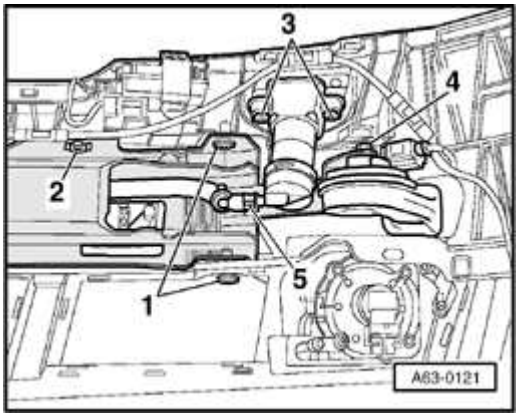


Fig. 303: Crossmember, removing from cover and installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Disconnect hose - **5** - of headlamp cleaning system on both sides (press release buttons).
- Unscrew bolts - **3** - of right spray jet for headlamp cleaning system - spray jet remains installed.
- Remove bolts - **1** - (Qty. 5).
- Pry off retaining clips - **2** - (Qty. 3).

- Swivel spray jet for headlamp cleaning system to the side and remove crossmember from bumper cover.

Bumper crossmember to impact absorber mount

NOTE:

- **Impact absorber is self-adjusting, meaning it can compensate bearing tolerances in height between crossmember and Impact absorber when installing the bolt.**
- **This holds and secures the crossmember automatically in the previously adjusted position when installing the bolt - 1 -.**

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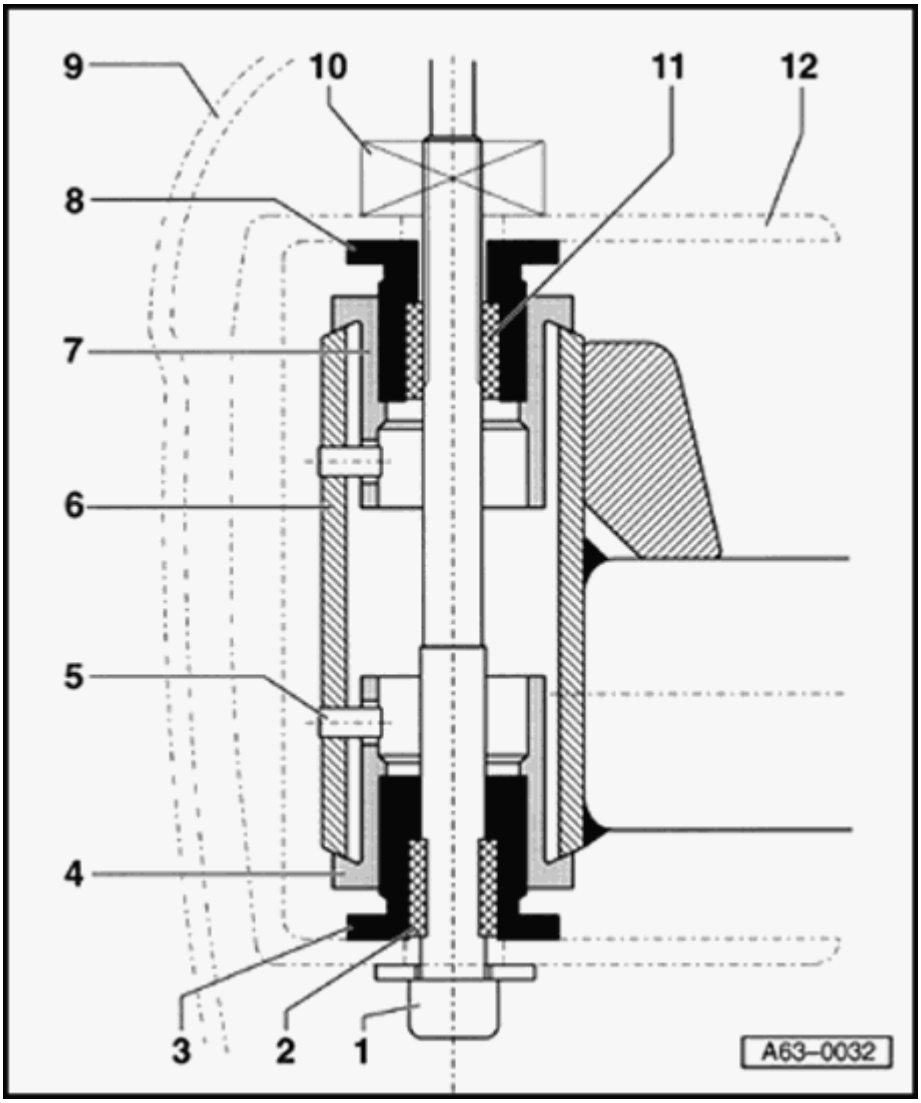


Fig. 304: Bumper, Mounting To Shock Absorber Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Screw

- 23 Nm

2 - Lower carrier bushing

- Plastic part pressed into adjusting screw.
- No replacement part.

3 - Lower adjusting screw

- Before assembling bumper crossmember, install completely but do not tighten.
- Left-hand thread

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- No replacement part.

4 - Lower threaded bushing

- Secured against falling out with securing pin.
- No replacement part.

5 - Securing pin

- No replacement part.

6 - Impact absorber

- Removing and installing --> **Impact absorber, removing and installing**.

7 - Upper threaded bushing

- Secured against falling out with securing pin.
- No replacement part.

8 - Upper adjusting screw

- Install completely before assembling bumper crossmember.
- Right-hand thread
- No replacement part.

9 - Cover

- Removing and installing --> **Front bumper (up to model year 2005) - assembly overview**.

10 - Nut

- Belongs to crossmember delivery casing.

11 - Upper carrier bushing

- Plastic part pressed into adjusting screw.
- No replacement part.

12 - Cross member

Impact absorber, removing and installing

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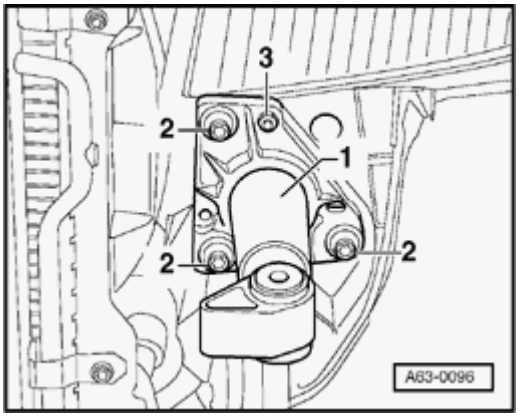


Fig. 305: Impact Absorber Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Bumper crossmember removed.

  - Unscrew bolts - **2** -.
  - Unscrew nut - **3** - and pull impact absorber - **1** - from longmember.

2 - Screw (50 Nm)

3 - Nut (4 Nm)

REAR BUMPER

Bumper cover, removing and installing

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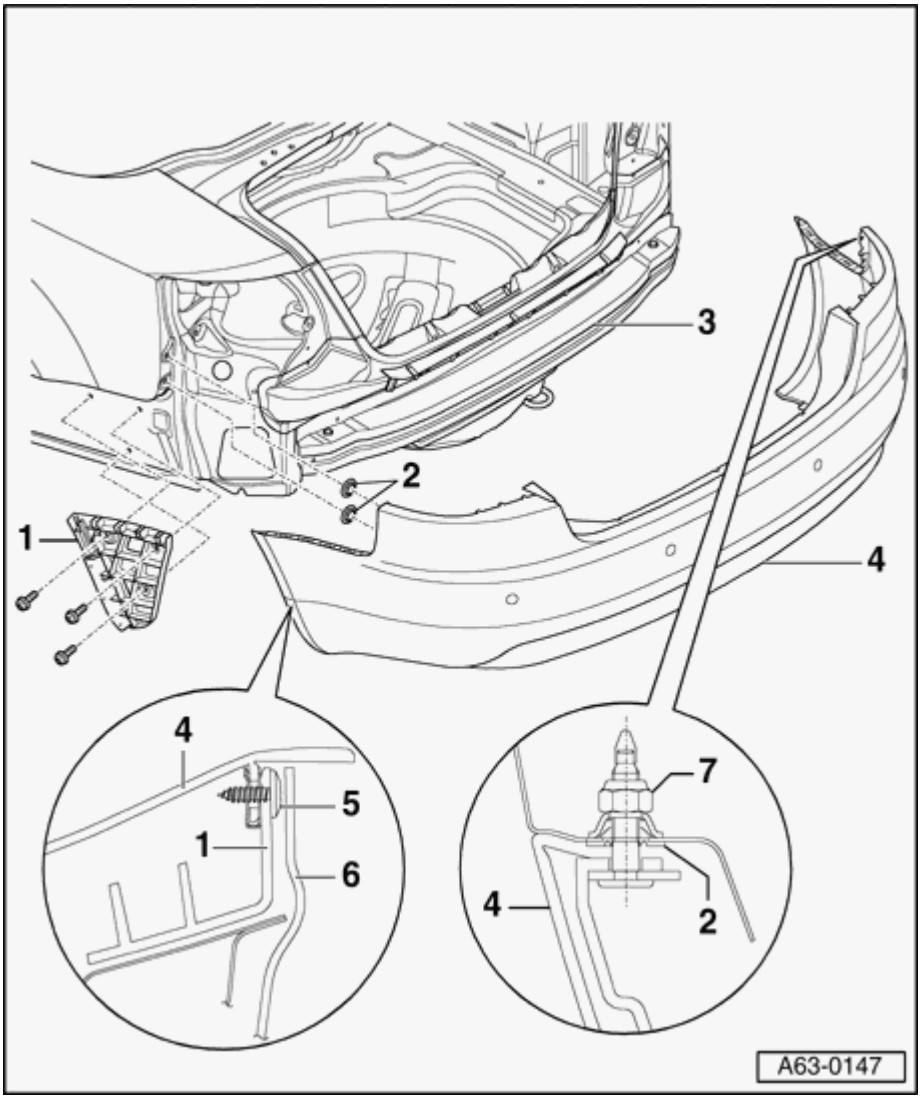


Fig. 306: Bumper Cover Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Guide piece

- Removing and installing **Guide piece, removing and installing**.

2 - Grommet

- 2 pieces per side.
- Must be inserted in fender before installing bumper cover **Side panel grommets, installing**.

3 - Cross member

- Removing --> **Bumper crossmember, removing and installing**.

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4 - Bumper cover

- **Removing:**

  - Remove bolts in rear area of wheel housing liner.
  - Drive back wheel housing liner and remove bolts from guide piece.
  - Remove luggage compartment side trim -->
    - **70 - INTERIOR TRIM**
    - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

    .
  - Remove nuts from luggage compartment.
  - Unclip bumper cover side flanks from guide piece.
  - Pull bumper cover back slightly and if necessary, disconnect electrical connector (at left under tail light) to the parking assist system sensors.
  - Remove bumper cover toward rear.

- Panel gap dimensions **Panel gap dimensions**

5 - Screw

- 1.5 Nm

6 - Wheel housing liner

7 - Nut

- 4 Nm

Side panel grommets, installing

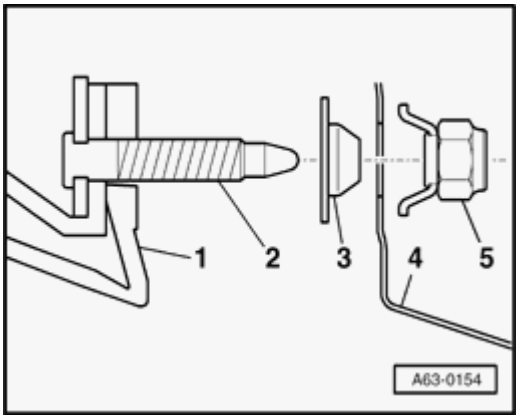


Fig. 307: Checking To See If Threaded Pins On Bumper Side Walls And Grommets In Fenders Are Present

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

NOTE:

- **Before installing bumper cover - 1 - , check to see if threaded pins - 2 - on bumper sides and grommets - 3 - are present.**

  - Before installing bumper cover - **1** - , grommets - **3** - must slide onto threaded pins - **2** -.

4 - Side panel

5 - Nut (6 Nm)

  - Tighten nut - **5** - after installing.

Guide piece, removing and installing

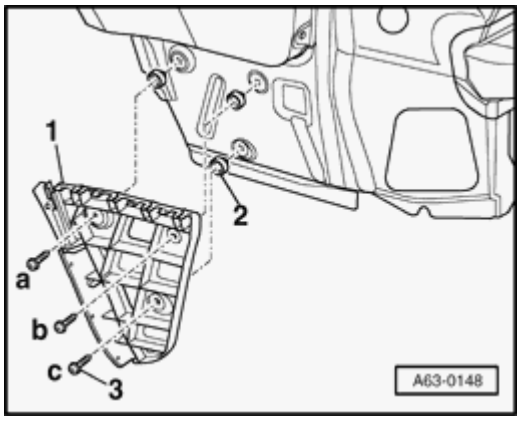


Fig. 308: Guide Piece, Removing And Installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Bumper cover removed.

  - Remove bolts - **3** - and remove guide piece - **1** -.

2 - Clip

  - When installing, tighten bolts - **3** - in - **a** - , - **b** - and - **c** - sequence.

a, b, c - Screw (1.5 Nm)

Panel gap dimensions

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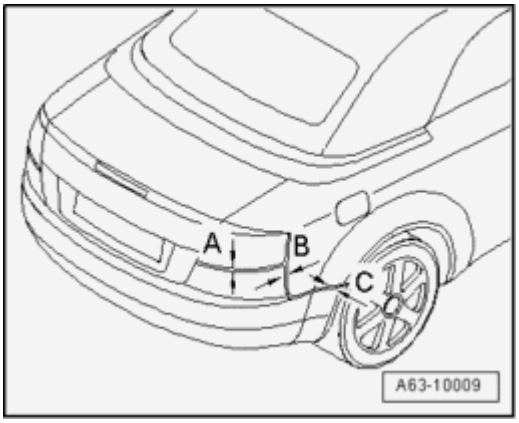


Fig. 309: Panel Gap Dimensions
Courtesy of VOLKSWAGEN UNITED STATES, INC.

NOTE:

- **Panel gap dimensions can be checked with Adjusting Gauge 3371.**
- **Dimension - A - = 2 mm + 0.5 mm.**
- **Dimension - B - = 0 mm ± 0.6 mm.**
- **Dimension - C - = 0 mm ± 0.6 mm.**

Bumper crossmember, removing and installing

NOTE:

- **Bumper cover removed.**

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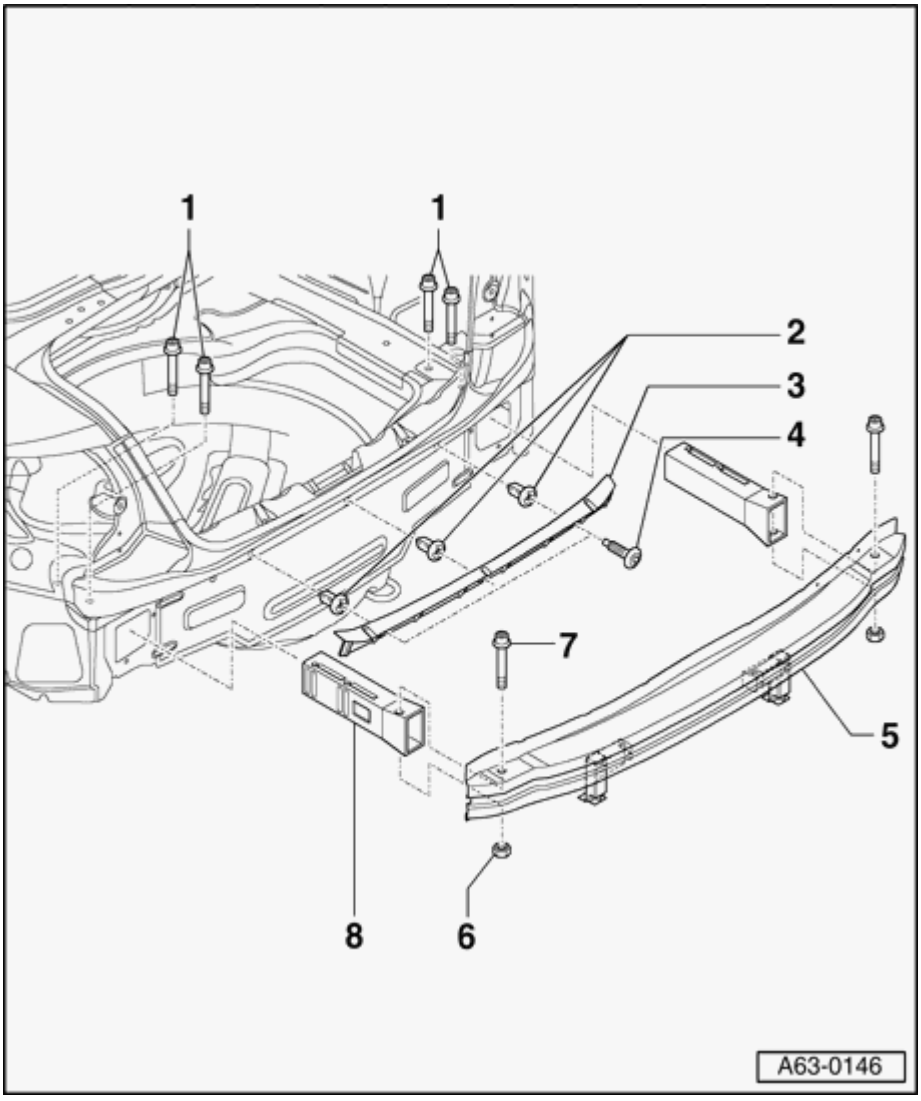


Fig. 310: Bumper Crossmember Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Screw

- 18 Nm
- Qty. 4

2 - Grommets

3 - Support piece

4 - Screw

- 1.5 Nm

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5 - Cross member

6 - Nut

- 20 Nm
- Qty. 2

7 - Screw

- 20 Nm
- Qty. 2

8 - Impact absorber

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63 BUMPER

FRONT BUMPER

Front bumper, removing and installing

Special tools, testers and auxiliary items required

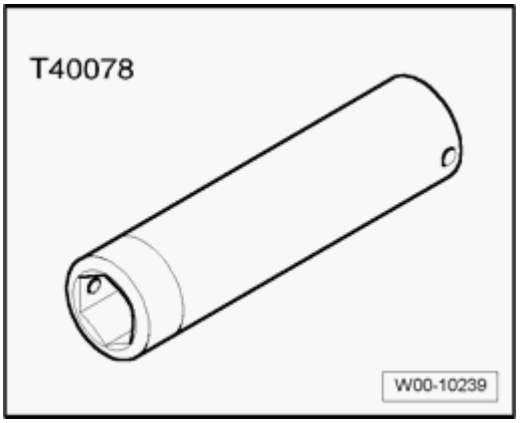


Fig. 167: Socket 40078
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Socket 40078
- Use socket 40078 to screw in cap nuts on fender bolts.

Up to Vehicle Identification Number (VIN) 400 000

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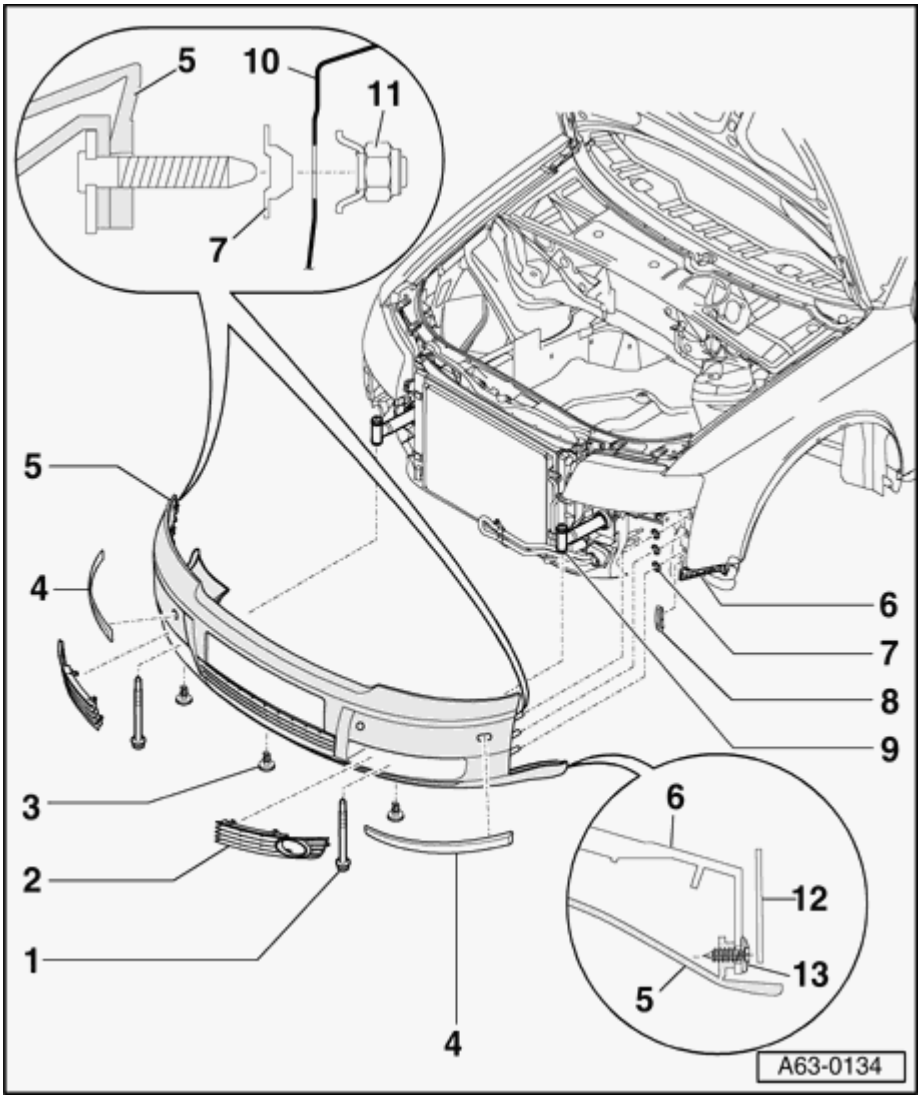


Fig. 168: Front Bumper Remove/Install Components (Up To Vehicle Identification Number (VIN) 400 000)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Socket head bolt

- 26 Nm

2 - Air intake grille

- S4, removing **Air intake grille for S4**.

3 - Clamping pin

- To disassemble, rotate 180°.

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4 - Side impact molding

- Replace
- Side impact moldings are secured to bumper with double-sided adhesive tape.
- It is not possible to remove without destroying.
- To remove, pull side impact molding away from bumper.

- Remove any residual adhesive on bumper.
- Installation on same bumper
- Bumper must be free of dust and grease in adhesion area
- Clean bumper using petroleum spirits or cleaning solution D 009 401 04.

NOTE:

- **Centering holes for centering pins for the exact installation of side impact moldings are already present in bumper**
- **Position centering pins with double-sided adhesive tape onto markings of side impact molding Adhering centering pins on side impact molding.**
- **Remove protective foil from double-sided adhesive tape for side impact molding.**
- **Press side impact molding with attached centering pins firmly onto bumper over the entire surface.**
- **Installing on new bumper**

NOTE:

- **Centering holes for side impact molding must be drilled on the new bumper before painting.**
- **Position centering holes for side impact moldings on bumper --> Centering holes for side impact moldings.**
- **Apply side impact moldings to bumper as described above.**

5 - Bumper

- With crossmember
- Bumper, removing and installing --> **Front bumper, removing and installing**
- Removing and installing crossmember --> **Crossmember, removing from cover and installing**
- Separating two-piece bumper cover --> **Two-piece bumper cover, separating**

- Positioning license plate mounting holes **Positioning license plate mounting holes**

6 - Guide piece

- Removing and installing --> **Guide piece, removing and installing**

7 - Expanding clip

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- 6x
- Must be inserted into fender before installing bumper cover

8 - Grommet

- 2x
- Must be inserted into fender before installing bumper cover

9 - Shock absorber

- self-aligns to correct height in crossmember --> **Bumper, mounting to shock absorber**

10 - Fender

11 - Special nut

- 4 Nm

12 - Wheelhousing liner

13 - Bolt

- 1 Nm
- 2x

As of Vehicle Identification Number (VIN) 400 001

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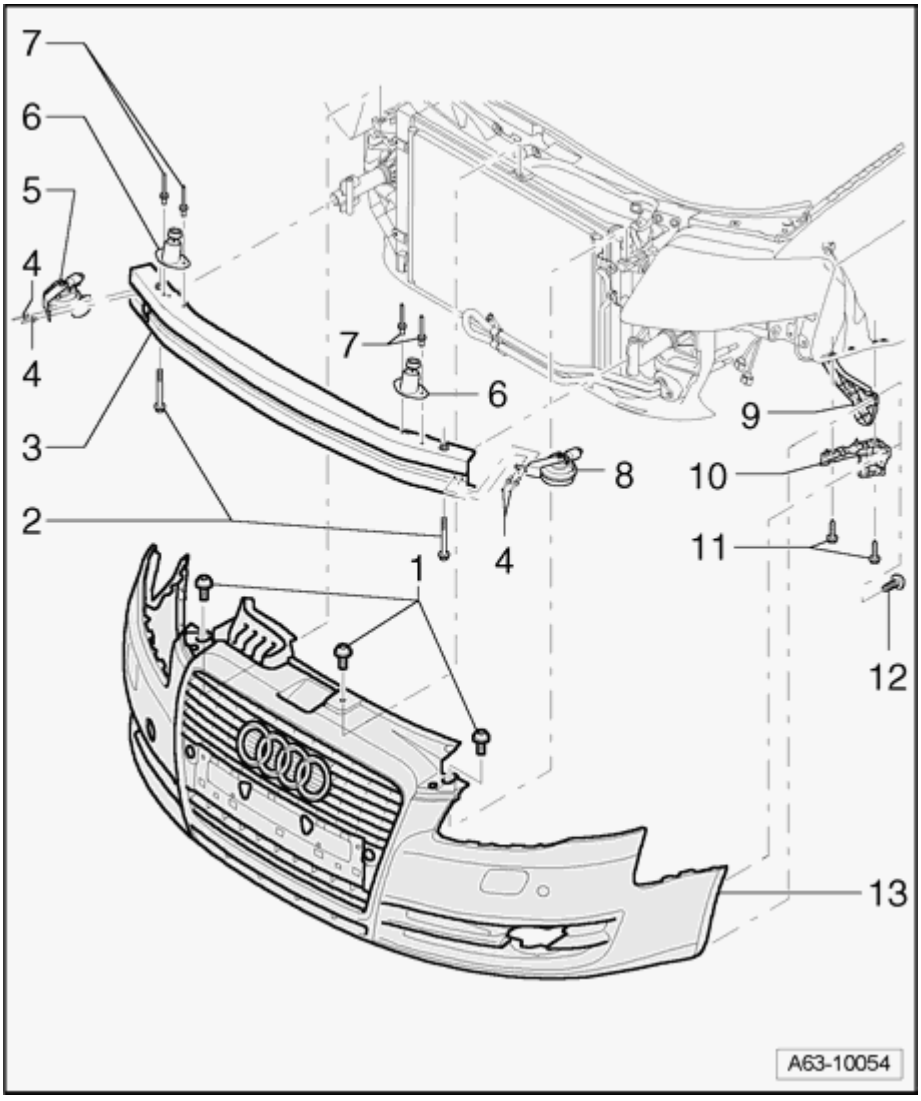


Fig. 169: Front Bumper Remove/Install Components (As Of Vehicle Identification Number (VIN) 400 001)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Combination bolt

- 6 Nm

2 - Socket head bolt

- 23 Nm

3 - Bumper

- Bumper cover removed.
- To remove, unscrew socket head bolts - **2** -.

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- Disconnect harness connectors to signal horns and remove bumper from shock absorbers toward front.

4 - Pop rivet

5 - Signal horn

- To remove, drill off rivet heads.

6 - Support piece

- Before assembling bumper cover, adjustment screw for support piece must be adjusted **Adjusting support piece**
- To disassemble, drill off pop rivet heads.

7 - Pop rivet

8 - Signal horn

9 - Brace for fender

10 - Guide piece

- Side piece of bumper cover must be clipped in between fender and guide piece **Removing guide piece**

11 - Torx screw

- 1 Nm

12 - Bumper cover

NOTE:

- **While installing, the following sequence described for assembling/bolting must be observed for correct assembly.**

  - Set cover onto vehicle and first clip the left and right side piece into guide parts - **10** -.
  - Tighten cap nuts on fender bolts to 4 Nm **Fender bolts**.
  - Tighten bolts - **12** - to wheelhousing liner.
  - Loosely thread in bolts - **1** -.

- Close hood and check cover for projection and recess.
- If necessary, correct the cover position and tighten bolts - **12** - to 6 Nm.
- Tighten bolt on support piece to 2 Nm.
- Bumper, removing and installing --> **Front bumper, removing and installing**

- Removing and installing crossmember --> **Crossmember, removing from cover and installing**

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Fender bolts

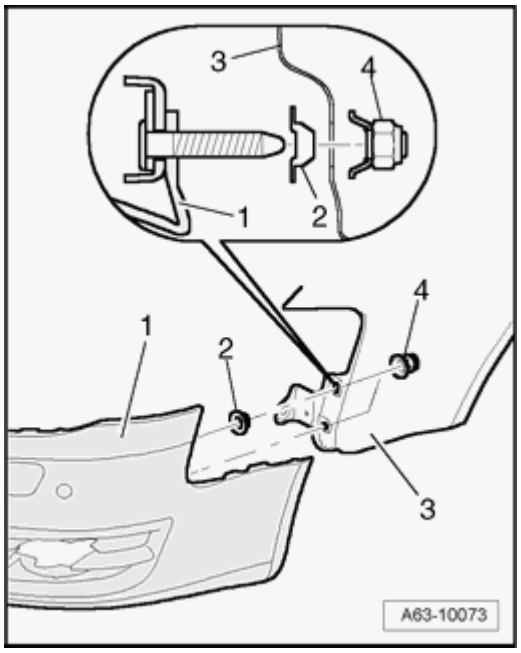


Fig. 170: Installing Fender Bolts
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Make sure when installing that the clips - **2** - are inserted onto threaded pins.
- Tighten cap nuts - **4** - to 4 Nm after inserting bumper cover - **1** - into fender - **3** -.

Adjusting support piece

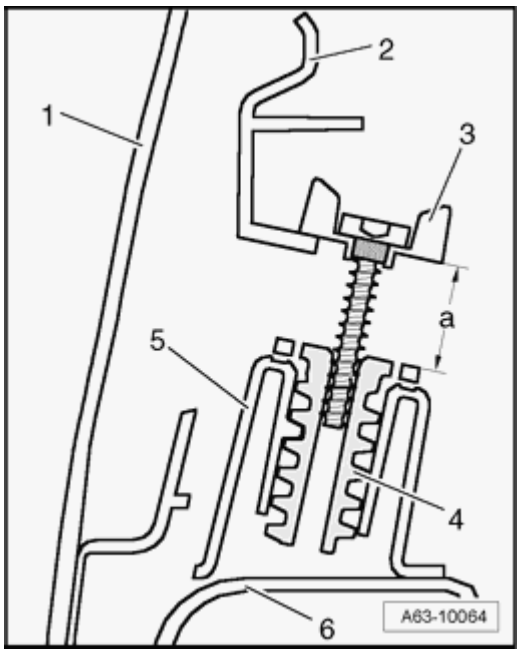


Fig. 171: Adjusting Support Piece

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Before installing bumper cover - **1** - , adjust adjustment screw - **3** - for support piece - **5** - to dimension - **a** - = 21 mm +1 mm.
- Mounting bracket - **4** - must be screwed on completely (left-hand thread) for this.
- Adjustment screw - **3** - and mounting bracket - **4** - belong to delivery casing for support piece - **5** - , there are no replacement parts.
- While screwing in bolt - **3** - , mounting bracket - **4** - screws out and holds the carrier part - **2** - of bumper cover - **1** - in the designated position.

- Support piece - **5** - is secured to bumper - **6** - with pop rivets.

Clamping pins for noise insulation

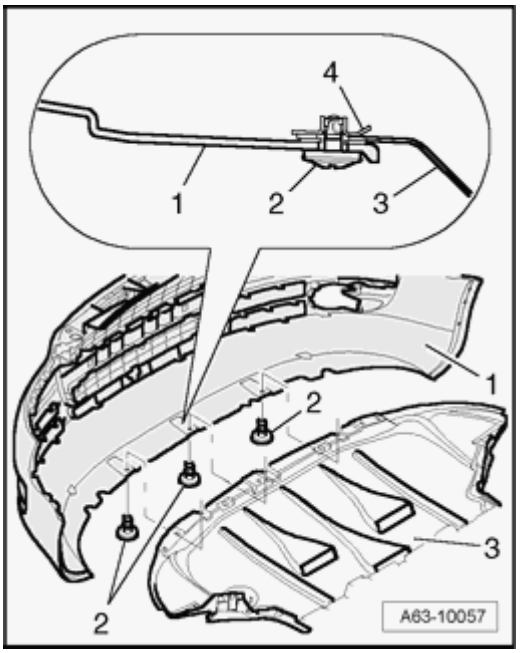


Fig. 172: Clamping Pins For Noise Insulation
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- When removing bumper cover - **1** - , rotate clamping pins - **2** - 180° and pull out of speed nuts - **4** - of noise insulation - **3** -.

Removing guide piece

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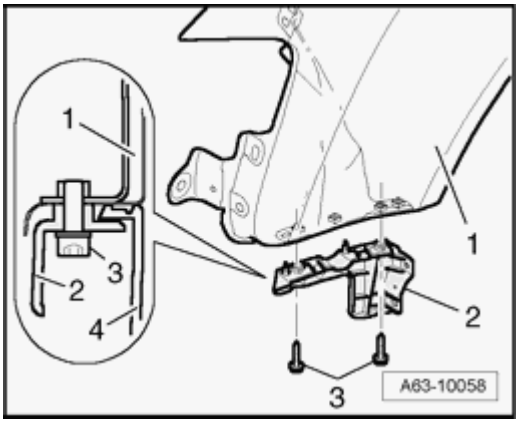


Fig. 173: Removing Guide Piece
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Bumper cover removed
- Unscrew bolts - **3** - and pull guide piece - **2** - downward out of fender - **1** -.
- When installing, cover - **4** - for bumper must engage cleanly in guide piece.

Brace for wheelhousing liner

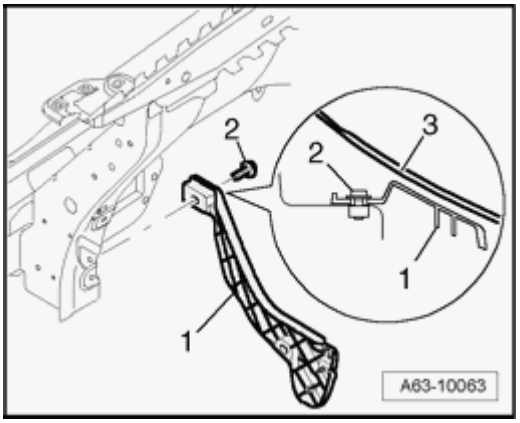


Fig. 174: Brace For Wheelhousing Liner
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- For mounting front wheelhousing liner - **3** -.
- When installing brace - **1** - , tighten bolt - **2** - to 10 Nm.

Air intake grille for S4

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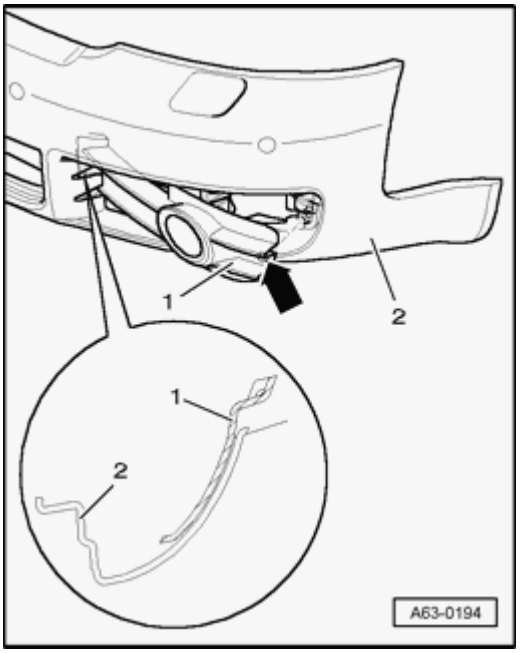


Fig. 175: Air Intake Grille For S4
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove phillips head bolt - **arrow** -.
- Press air intake grille - **2** - on the inside of bumper cover - **2** - as shown toward rear out of locking mechanism.
- Remove air intake grille toward front out of bumper cover.

Radiator grill, removing and installing

Assembly overview

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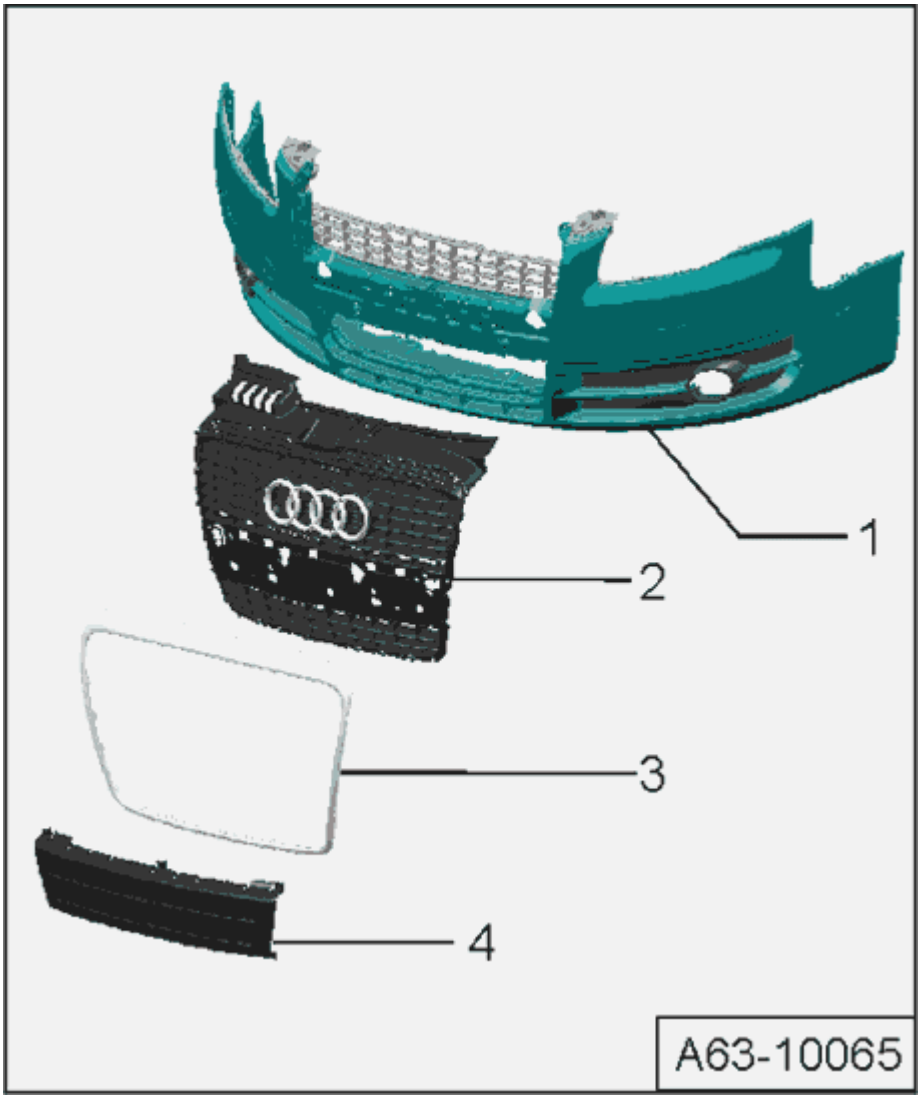


Fig. 176: Radiator Grill, Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Bumper cover

2 - Radiator grille

- Bumper cover removed

3 - Trim for radiator grille

4 - License plate holder

- To disassemble from rear side, unclip from radiator grille

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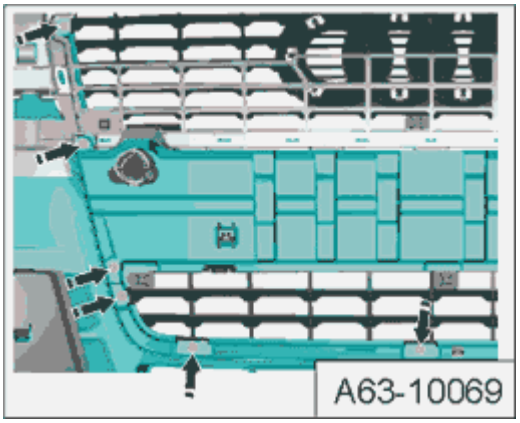


Fig. 177: Removing Radiator Grille
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Removing radiator grille

- Bumper cover removed
- Unscrew bolts - **arrows** - around edge and pull radiator grille from bumper cover.
- When installing, tighten bolts to 1.5 Nm.

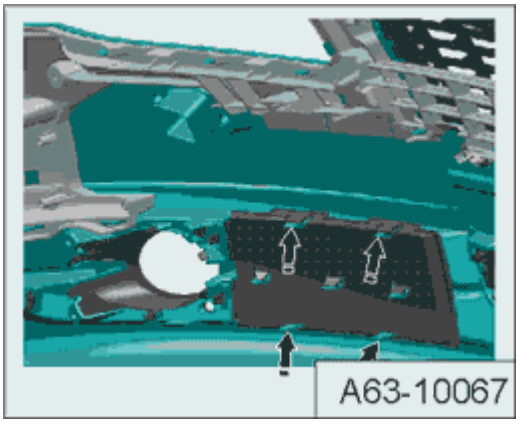


Fig. 178: Removing Panel For Fog Lights
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Removing panel for fog lights

- Disengage locking mechanisms - **arrows** - and pull off panel toward vehicle interior.

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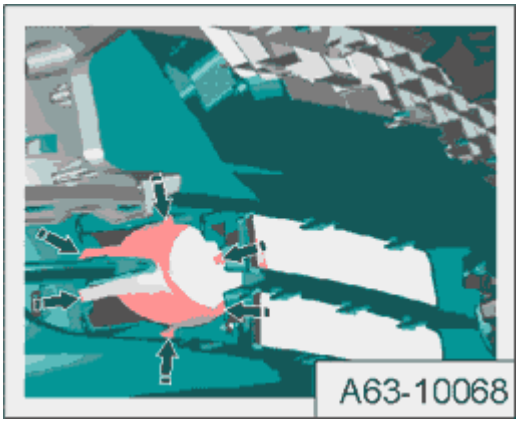


Fig. 179: Disengaging Fog Lights Locking Mechanisms
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Fog lights removed.

- Disengage locking mechanisms - **arrows** - and pull off panel toward outside.

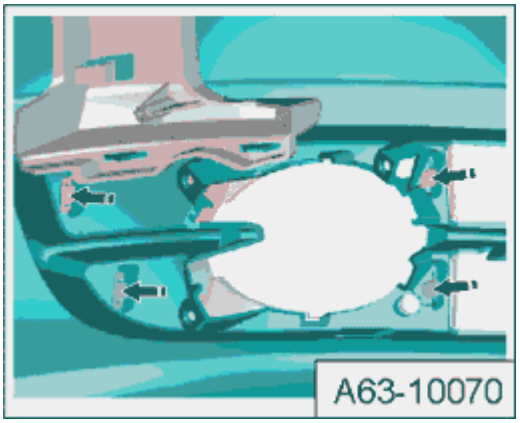


Fig. 180: Disengaging Covers Locking Mechanisms
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Covers are divided into two parts.

Disengage locking mechanisms - **arrows** - and pull off cover toward outside.

Centering holes for side impact moldings

Up to Vehicle Identification Number (VIN) 400 000

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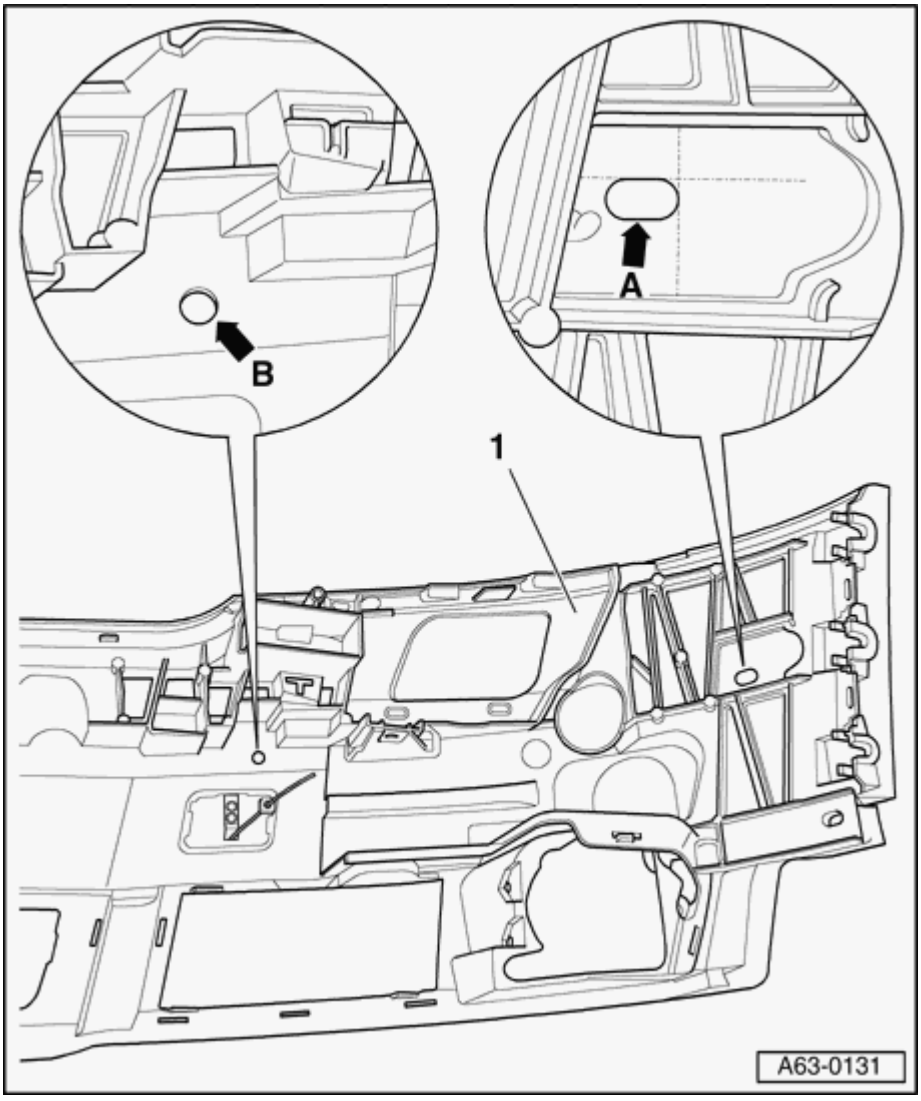


Fig. 181: Centering Holes For Side Impact Moldings
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Front bumper

- Position hole to vehicle outside - **arrow B** - according to marking on bumper.

NOTE:

- **If there is no marking in this position, the long hole (as depicted in illustration) must be manufactured at upper/outer edge, according to the lines on bumper Positioning centering holes.**
- **Position hole to vehicle center - arrow A - according to marking on bumper.**

Positioning centering holes

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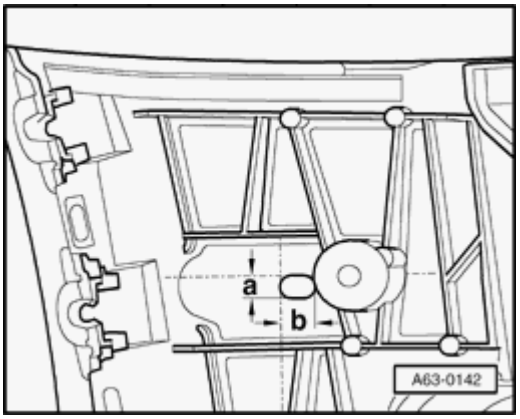


Fig. 182: Positioning Centering Holes
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Position of long holes is indicated by markings on bumper.
- Long hole must be aligned to dimensions - **a** - = 8.5 mm and b = 15.5 mm as shown
- If there is no marking in this area, the long hole must be aligned according to the indicated lines on bumper as shown, with upper edge to horizontal line and with outer edge to vertical line.
- Dimension - **a** - = 8.5 mm.
- Dimension - **b** - = 15.5 mm.

Adhering centering pins on side impact molding

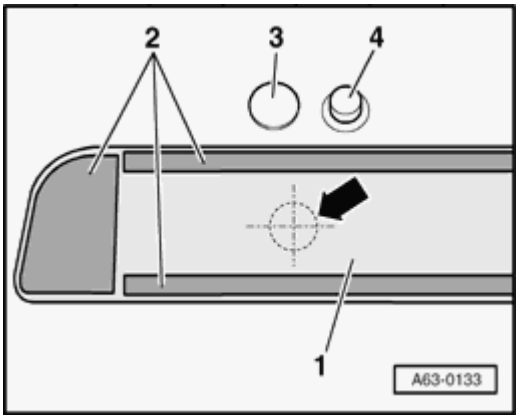


Fig. 183: Adhering Centering Pins On Side Impact Molding
Courtesy of VOLKSWAGEN UNITED STATES, INC.

NOTE:

- **Adhesive and centering pin are in delivery casing of side impact molding.**

- Remove protective foil from the double-sided adhesive - **3** - and adhere it onto centering pin - **4** -.
- Remove second protective foil and position centering pin onto marking - **arrow** - on side impact molding.
- Remove protective foils from double-sided adhesive strips - **2** - and press side impact molding - **1** - onto bumper.

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Positioning license plate mounting holes

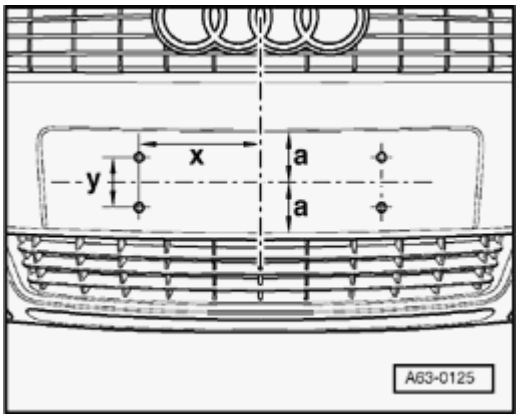


Fig. 184: Positioning License Plate Mounting Holes
Courtesy of VOLKSWAGEN UNITED STATES, INC.

There are four centering punch marks on license plate area of bumper cover which must be drilled through for securing a license plate (dimensions 115 x 520 mm).

If centering punch marks are not visible, proceed as follows:

- Determine vertical bisecting line from Audi emblem to center of grill on bumper.
- Determine horizontal bisecting line:

- Dimension - **a** - = dimension - **a** -

- Determine mounting points for license plate symmetrically as follows:

- Dimension - **x** - = 139 mm
- Dimension - **y** - = 62 mm

Front bumper, removing and installing

Removing

- To ease repair work, remove front noise insulation completely.

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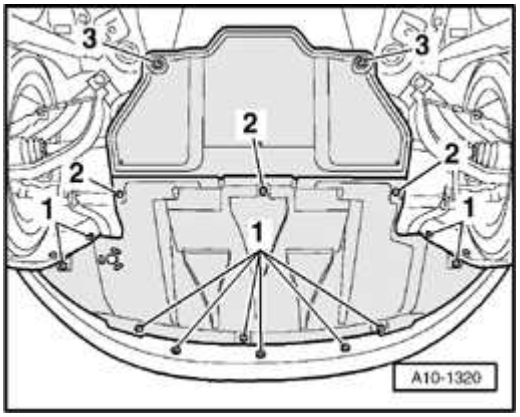


Fig. 185: Identifying Quick-Release Fasteners And Noise Insulation
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- For this purpose, remove bolts and quick release screws - **1** - and - **2** -. Rear noise insulation (quick release screws - **3** -) remains installed.
- Remove left and right front wheels.

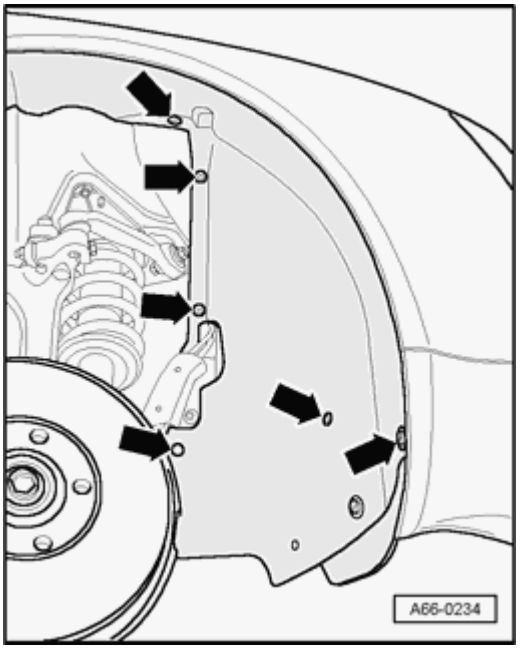


Fig. 186: Loosening Left/Right Wheelhousing Liners In Front Area
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Loosen left and right wheelhousing liners in front area - **arrows** -.

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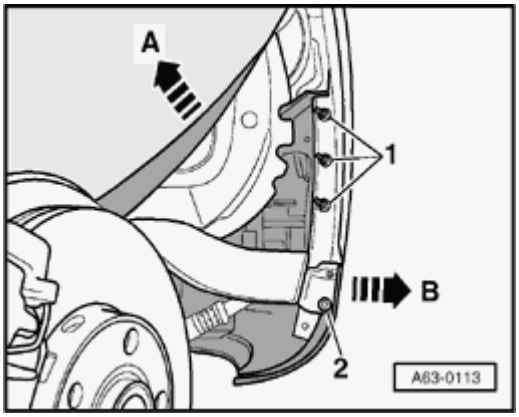


Fig. 187: Pulling Back Wheelhousing Liner & Unclipping Bumper Rear Edge From Catch
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull back wheelhousing liner - **arrow A** -.
- Remove bolt - **2** - and nuts - **1** -.
- Unclip bumper rear edge from catch - **arrow B** -.
- Repeat procedure on opposite side of the vehicle.

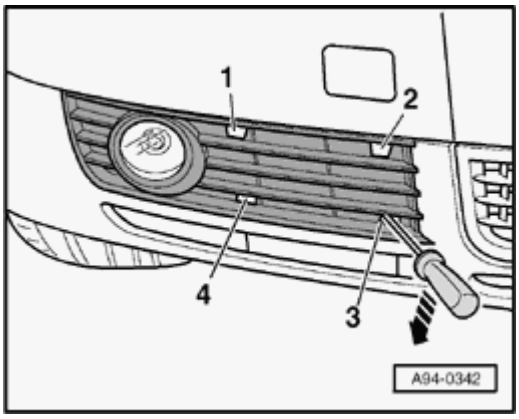


Fig. 188: Releasing Catches Using Screwdriver And Removing Air Intake Grille On Left/Right On Bottom Part Of Bumper
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Release catches - **1** - to - **4** - using a screwdriver - **arrow** - and remove air intake grille on left and right on bottom part of bumper.

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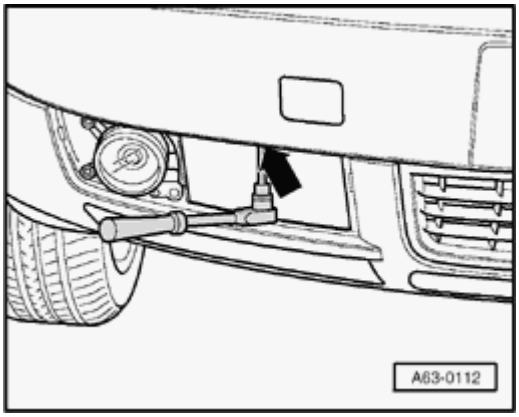


Fig. 189: Unthreading Left/Right Retaining Bolts For Bumper
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Unthread left and right retaining bolts for bumper approx. 15 rotations - **arrow** -.
- Pull lock carrier slightly toward front.

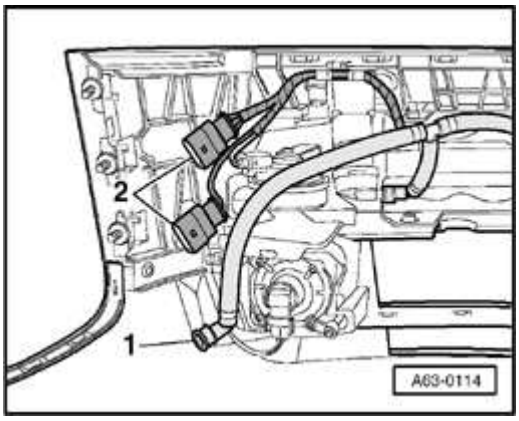


Fig. 190: Disconnecting Hose To Headlight Cleaning System & Harness Connector(s) To Bumper
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- If installed, disconnect hose - **1** - to headlight cleaning system and reserve washer fluid in a clean container for re-use.
- Disconnect harness connector(s) - **2** - to bumper.

Installing

Installation is the reverse of removal, noting the following:

NOTE:

- **Before installing bumper, check for the presence of threaded pins at bumper rear edge as well as expanding clips and sleeves in the fenders.**

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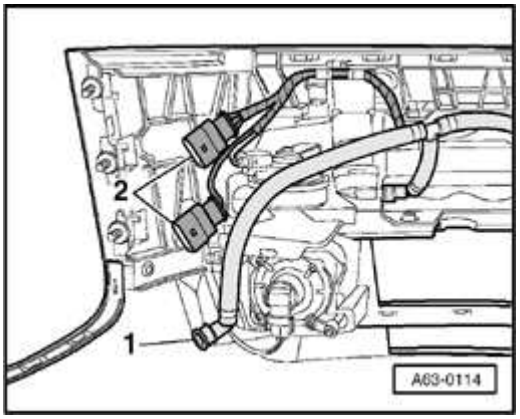


Fig. 191: Removing/Installing Hose To Headlight Cleaning System & Harness Connector(s) To Bumper
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Slide bumper onto shock absorber and re-connect hose - **1** - of headlight cleaning system and electrical harness connectors - **2** -.
- Move bumper into installation position. Make sure that the threaded pins in bumper side edges engage into holes at the fenders.

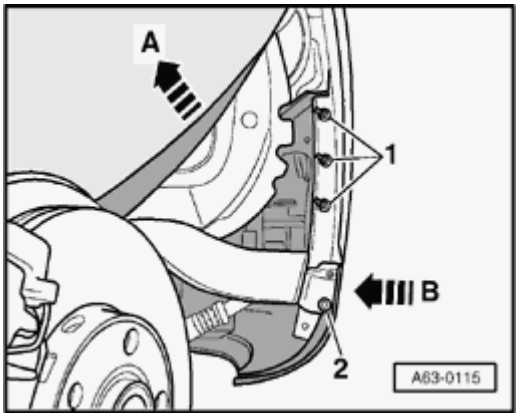


Fig. 192: Pulling Back Wheelhousing Liner & Engaging Bumper Rear Edge Into Catch
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull back wheelhousing liner - **arrow A** -.
- Engage bumper rear edge into catch - **arrow B** -.
- Tighten nuts - **1** - to 4 Nm and bolt - **2** - to 1 Nm.
- Repeat procedure on opposite side of the vehicle.

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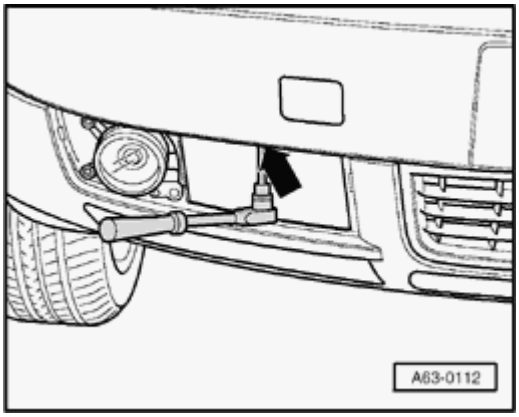


Fig. 193: Removing/Installing Left/Right Retaining Bolts For Bumper
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Tighten left and right retaining bolts for bumper to 23 Nm - **arrow** -.
- Install left and right air intake grille on bumper.

Rest of installation is performed in the reverse order of removal.

Bumper, mounting to shock absorber

Up to Vehicle Identification Number (VIN) 400 000

NOTE:

- **Shock absorber is self-adjusting, meaning it can compensate bearing tolerances in height between bumper and shock absorber when screwing in the socket head bolt.**
- **This holds and secures the front bumper automatically in the previously adjusted position when screwing in the socket head bolt - 1 -.**
- **In vehicles as of Vehicle Identification Number (VIN) 400 001, the self-adjusting height compensation has been discontinued.**

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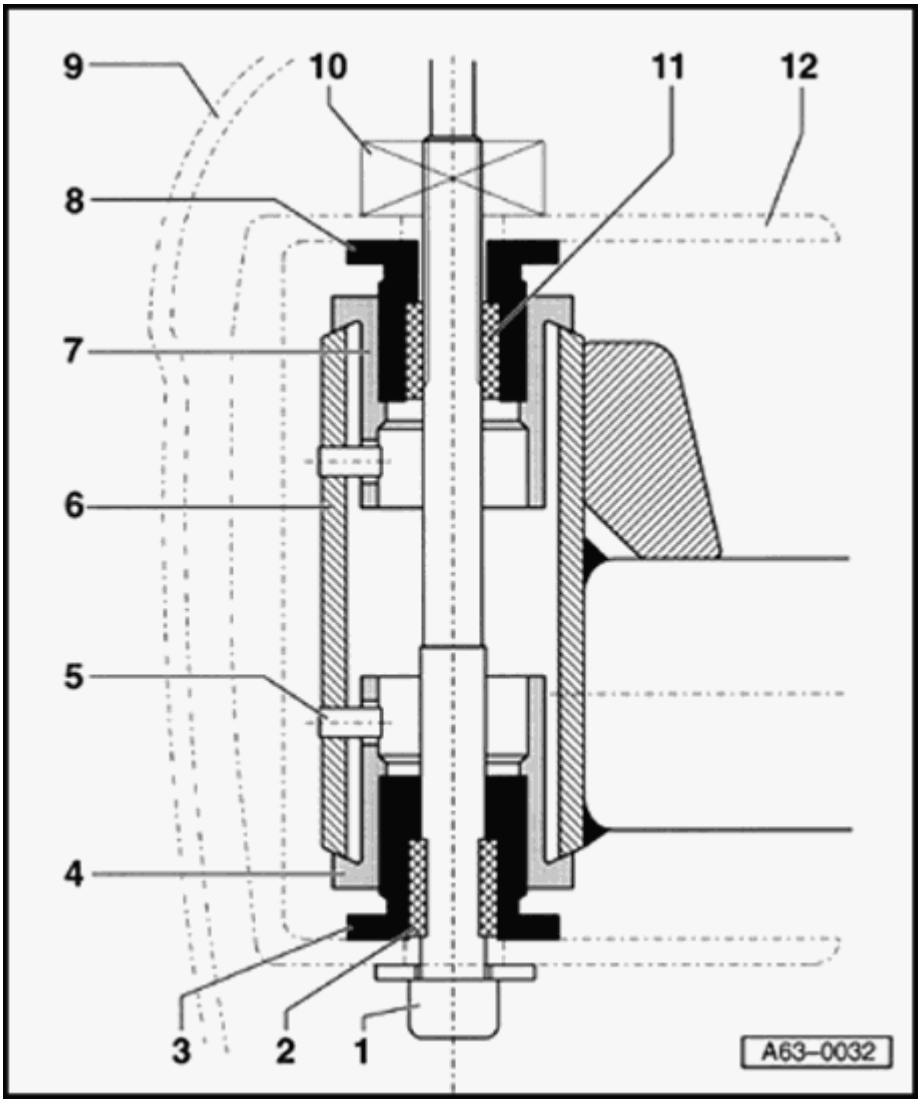


Fig. 194: Bumper, Mounting To Shock Absorber Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Socket head bolt

- 23 Nm

2 - Lower carrier bushing

- Plastic part pressed into adjusting screw.
- No replacement part available

3 - Lower adjusting screw

- Before assembling bumper, screw in completely but do not tighten.
- Left-hand thread

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- No replacement part available

4 - Lower threaded bushing

- Secured against falling out with securing pin.
- No replacement part available

5 - Securing pin

- No replacement part available

6 - Shock absorber

- Removing and installing --> **Shock absorber, removing and installing**.

7 - Upper threaded bushing

- Secured against falling out with securing pin.
- No replacement part available

8 - Upper adjusting screw

- Screw in completely before assembling bumper.
- Right-hand thread
- No replacement part available

9 - Cover

- Removing and installing --> **Front bumper, removing and installing**.

10 - Nut

- Belongs to crossmember delivery casing.

11 - Upper carrier bushing

- Plastic part pressed into adjusting screw.
- No replacement part available

12 - Cross member

- Removing from cover and installing --> **Crossmember, removing from cover and installing**

Guide piece, removing and installing

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Up to Vehicle Identification Number (VIN) 400 000

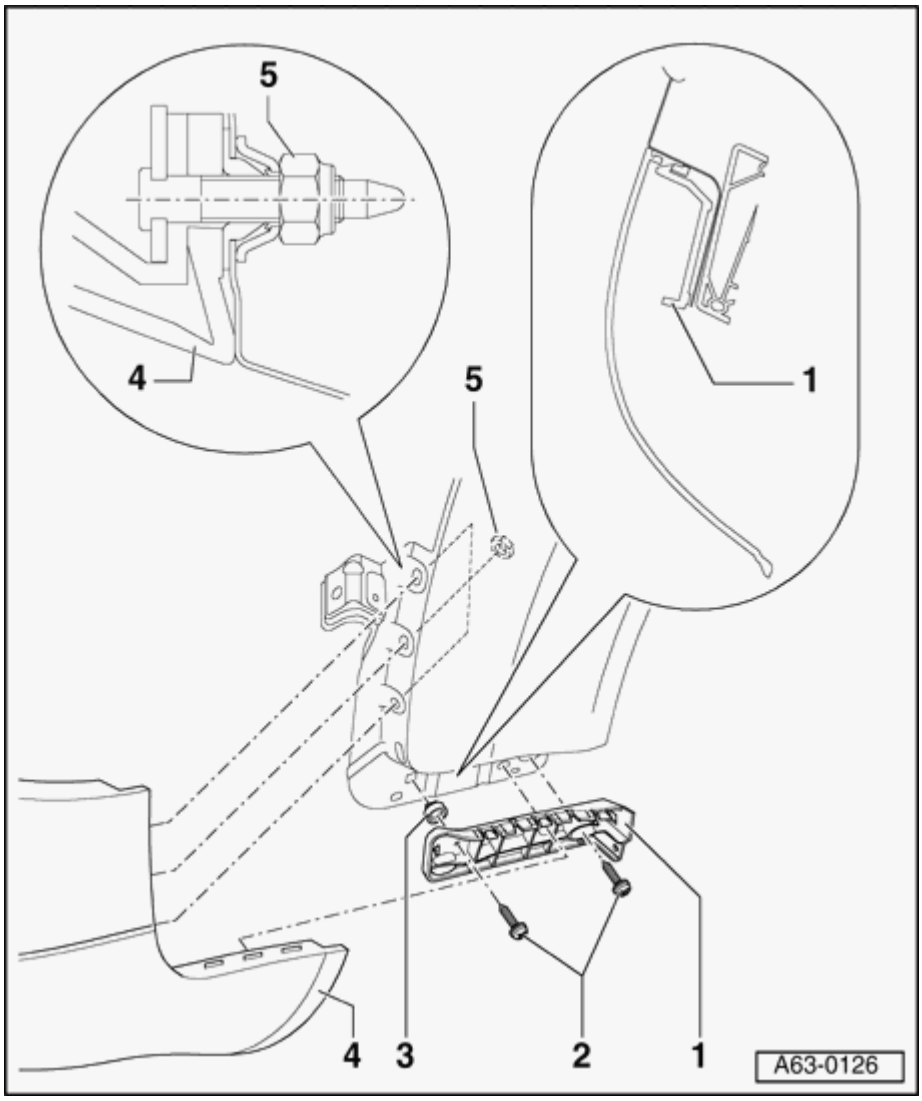


Fig. 195: Guide Piece Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Guide piece

- Bumper removed.
- To remove, remove bolts - **2** -.

2 - Bolt

- 1.5 Nm

3 - Clip

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4 - Cover

- Removal --> **Front bumper, removing and installing**
- When installing, cover must engage cleanly in guide piece - **1** -.

5 - Special nut

- 4 Nm
- Only accessible after loosening front half of wheelhousing liner.

Crossmember, removing from cover and installing

- Bumper removed.
- Remove signal horn - **4** -.

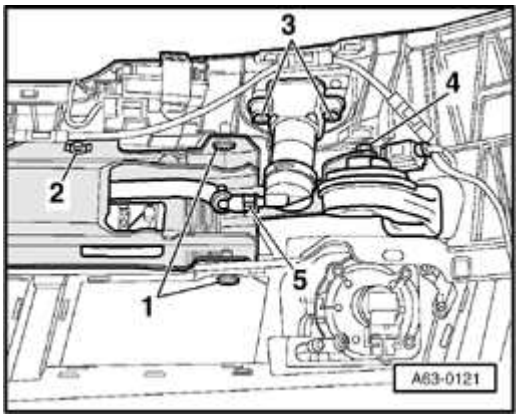


Fig. 196: Crossmember, removing from cover and installing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Disconnect hose - **5** - of headlamp cleaning system on both sides (press release buttons).
- Unscrew bolts - **3** - of right spray jet for headlamp cleaning system - spray jet remains installed.
- Remove bolts - **1** - (qty. 5).
- Pry off retaining clips - **2** - (qty. 3).
- Swivel spray jet for headlamp cleaning system to the side and remove crossmember from bumper cover.

Two-piece bumper cover, separating

- Bumper removed.

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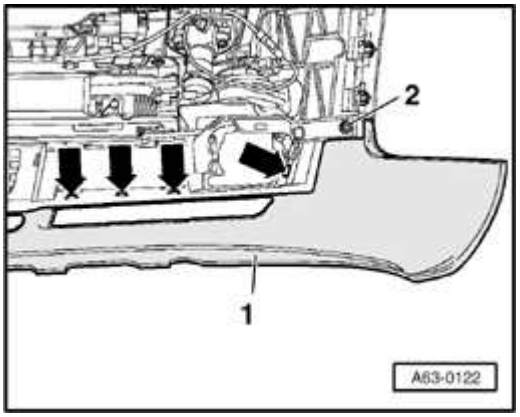


Fig. 197: Two-Piece Bumper Cover, Separating
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Unscrew bolt - **2** - on both sides.
- Release catches for center part of air intake grille and remove it.
- Release catches - **arrows** - and remove lower part - **1** - of bumper cover.

Shock absorber, removing and installing

- Bumper removed.

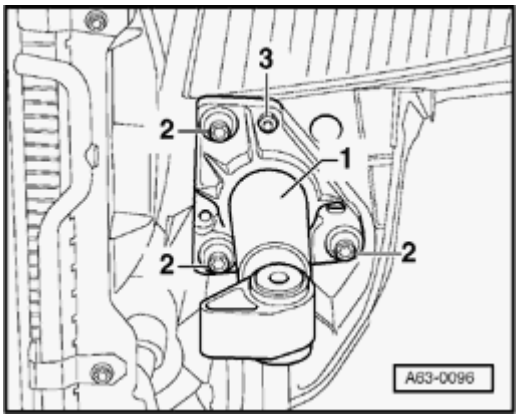


Fig. 198: Shock Absorber Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove combination bolts - **2** -.
- Unscrew nut - **3** - and pull shock absorber - **1** - from longmember.
- When installing, tighten combination bolts - **2** - to 50 Nm and hex nut - **3** - to 4 Nm.

REAR BUMPER (SEDAN)

Bumper, removing and installing

Up to Vehicle Identification Number (VIN) 400 000

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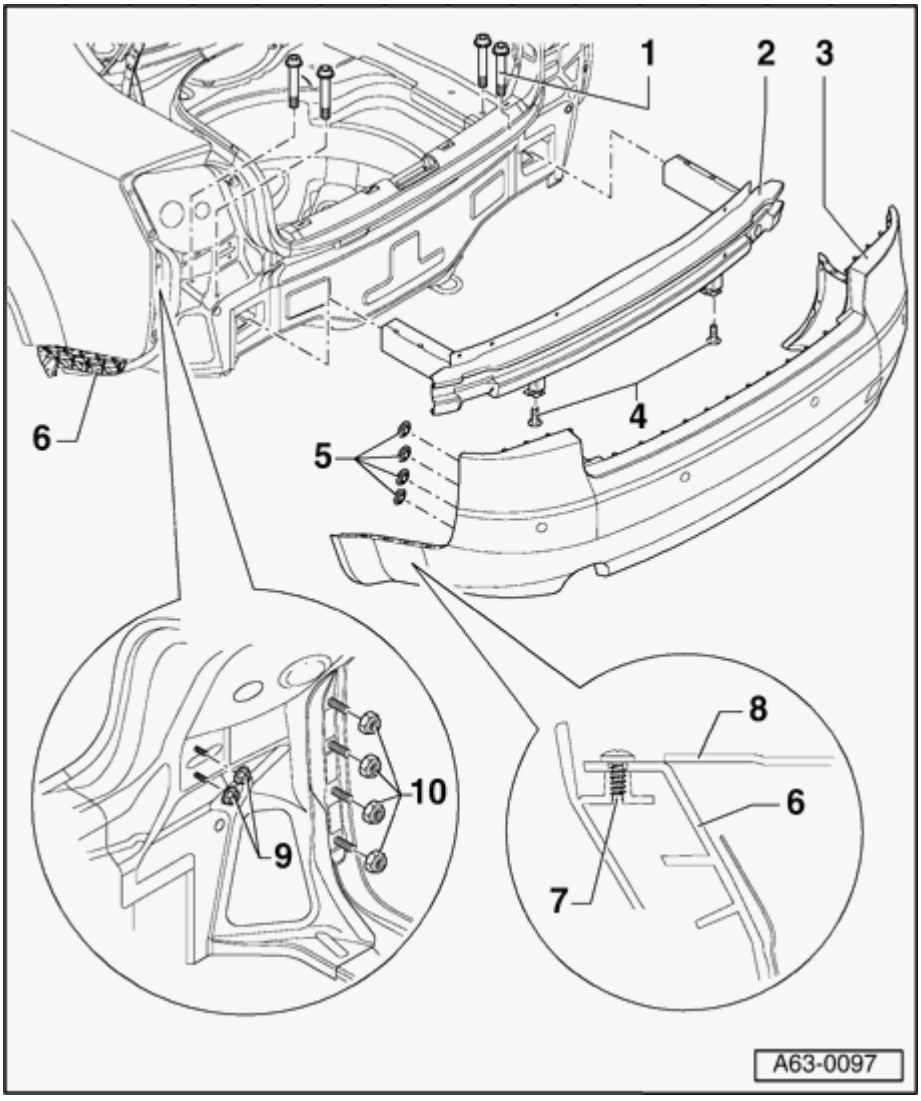


Fig. 199: Rear Bumper (Sedan) Remove/Install Components (Up to Vehicle Identification Number (VIN) 400 000)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Combination bolt

- 18 Nm

2 - Bumper

- Bumper cover removed.

Remove combination bolts - **1** - and pull out bumper toward rear.

3 - Cover

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- Two-piece version
- One-piece version (for USA)
- **Removing:**
- Remove side luggage compartment trim. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
- Disconnect electrical harness connectors to parking aid sensors at control module (under tail light, left side).
- Remove cap nuts - **9** - and - **10** -.
- Remove combination bolts - **4** -.
- Unscrew wheel housing liners - **8** - in rear area.
- Remove bolts left and right on guide piece - **6** -
- Unscrew bolts - **7** - from wheelhousing liner
- Unclip cover side-pieces on guide piece.
- Remove cover.
- Separating two-piece cover:
- Drill off rivet heads from pop rivets at left and right.
- Disengage locking tabs and pull spoiler out of cover.

4 - Combination bolts

- 4 Nm

5 - Grommet

- Grommets must be pressed in before assembling cover.

6 - Guide piece

- Removing and installing --> **Guide piece, removing and installing**

7 - Sheet-metal screw

- 2 Nm

8 - Wheelhousing liner

9 - Cap nut

- 4 Nm

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10 - Cap nuts

- 4 Nm

As of Vehicle Identification Number (VIN) 400 001

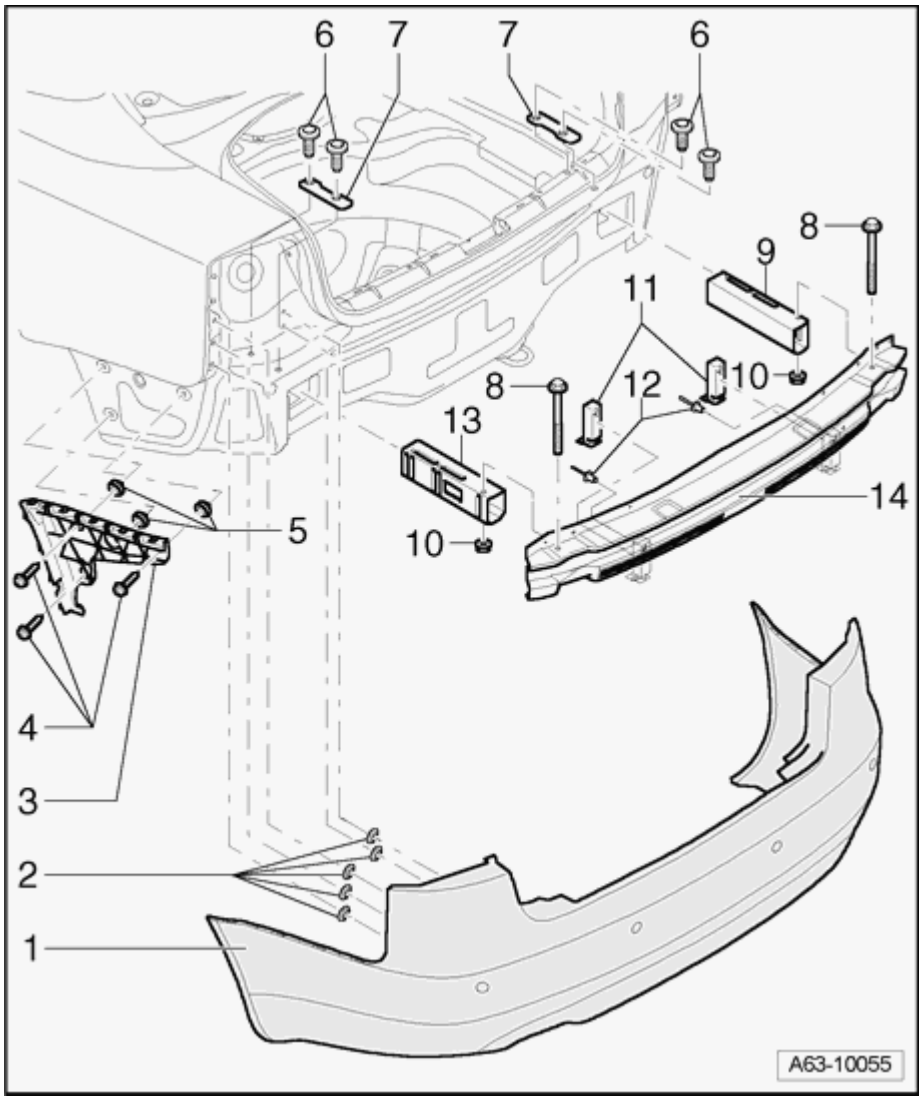


Fig. 200: Rear Bumper (Sedan) Remove/Install Components (As Of Vehicle Identification Number (VIN) 400 001)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Cover

- **Removing:**

  - Remove side luggage compartment trim. -->
    - **70 - INTERIOR TRIM**

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- **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

- Disconnect electrical harness connectors to parking aid sensors at control module (under tail light, left side).
- Remove special nuts - (accessible from luggage compartment).
- Remove special nuts - **Cap nuts**- (accessible from luggage compartment).
- Unscrew wheel housing liners in rear area.
- Remove bolts left and right on guide piece - **3** -
- Unclip cover side-pieces on guide piece.
- Remove cover.

- Separating two-piece cover:
- Drill off rivet heads from pop rivets at left and right.
- Disengage locking tabs and separate both pieces of cover.

-

2 - Grommet

- Grommets must be installed before assembling cover.

3 - Guide piece

4 - Combination bolts

- 1.5 Nm

5 - Expanding rivet

- Pressed into side panel at bottom

6 - Combination bolt

- 18 Nm

7 - Base plate

- Must always be installed.

8 - Combination bolt

- 18 Nm

9 - Right holder for bumper

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- Bumper removed
- Remove combination bolt - **8** - and pull shock absorber out of bumper.

10 - Hex nut

- 18 Nm
- Counterhold when tightening combination bolt - **8** -.

11 - Bracket

- Riveted to bumper.

12 - Pop rivet

13 - Left holder for bumper

- Bumper removed
- Remove combination bolt - **8** - and pull shock absorber out of bumper.

14 - Bumper

- Cover - **1** - removed.
- Remove combination bolts - **6** - and pull bumper toward rear out of longmembers.

Country version

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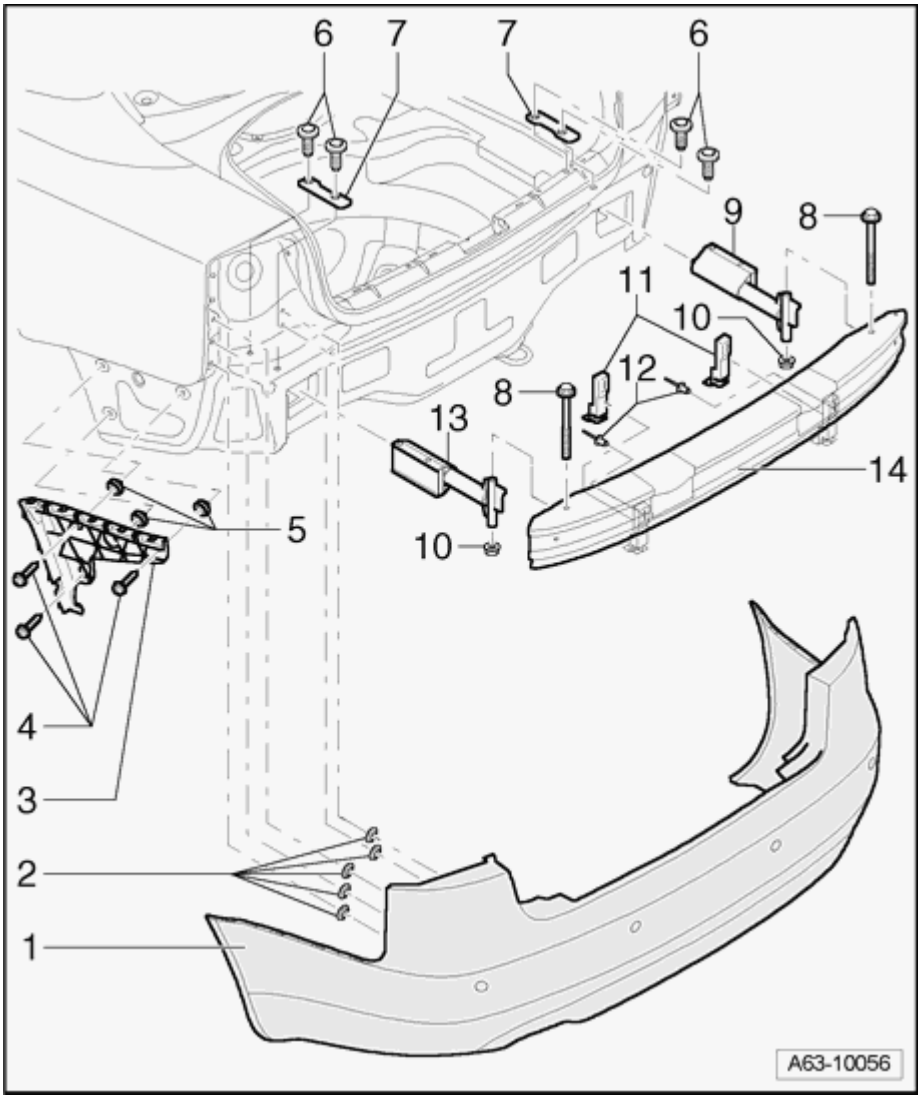


Fig. 201: Rear Bumper (Sedan) Remove/Install Components (Country Version)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Cover

- **Removing:**

  - Remove side luggage compartment trim. -->
    - **70 - INTERIOR TRIM**
    - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
  - Disconnect electrical harness connectors to parking aid sensors at control module (under tail light, left side).
  - Remove special nuts - (accessible from luggage compartment).
  - Remove special nuts - **Cap nuts**- (accessible from luggage compartment).

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- Unscrew wheel housing liners in rear area.
- Remove bolts left and right on guide piece - **3** -
- Unclip cover side-pieces on guide piece.
- Remove cover.

- Separating two-piece cover:
- Drill off rivet heads from pop rivets at left and right.
- Disengage locking tabs and separate both pieces of cover.

-

2 - Special nut

- 4 Nm

3 - Guide piece

4 - Combination bolts

- 1.5 Nm

5 - Expanding rivet

- Pressed into side panel at bottom

6 - Combination bolt

- 18 Nm

7 - Base plate

- Must always be installed.

8 - Combination bolt

- 30 Nm

9 - Right shock absorber

- Bumper removed
- Remove combination bolt - **8** - and pull shock absorber out of bumper.

10 - Hex nut

- 30 Nm

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- Counterhold when tightening combination bolt - **8** -.

11 - Bracket

- Riveted to bumper.

12 - Pop rivet

13 - Left shock absorber

- Remove combination bolt - **8** - and pull shock absorber out of bumper.

14 - Bumper

- Cover - **1** - removed.
- Remove combination bolts - **6** - and pull bumper toward rear out of longmembers.

Cap nuts



Fig. 202: Cap Nuts
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove cap nuts - **1** - and - **2** - for bumper cover disassembly.
- Cap nut - **2** - only installed in Avant models.
- When installing, tighten cap nuts to 4 Nm.

Side impact moldings, replacing

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Assembly overview

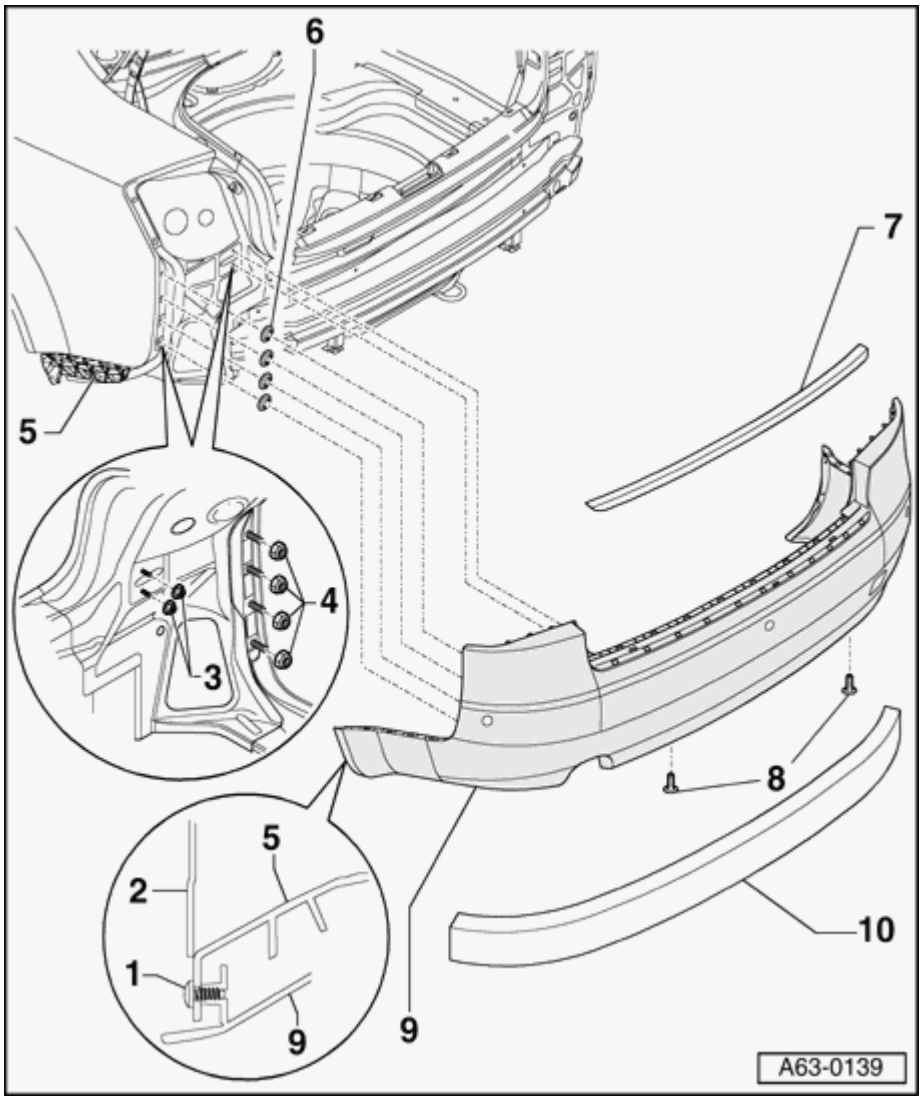


Fig. 203: Side Impact Moldings, Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Bolt

- 1 Nm

2 - Wheelhousing liner

3 - Cap nut

- 4 Nm

4 - Cap nut

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- 4 Nm

5 - Guide piece

6 - Grommet

- Must be pressed in before assembling cover - **9** -.

7 - Trim molding

8 - Bolt

- 2 Nm

9 - Cover

- Removal **Bumper, removing and installing**

10 - Side impact molding

- Replace
- Side impact moldings are secured to bumper with double-sided adhesive tape.
- It is not possible to remove without destroying.
- To remove, pull side impact molding away from bumper.

- Remove any residual adhesive on bumper.
- Installation on same bumper
- Bumper must be free of dust and grease in adhesion area
- Clean bumper using petroleum spirits or cleaning solution D 009 401 04.

- Position centering pins with double-sided adhesive tape onto markings of side impact molding **Adhering centering pins on side impact molding**.
- Remove protective foil from double-sided adhesive tape for side impact molding.
- Press side impact molding with attached centering pins firmly onto bumper over the entire surface.

Centering holes for side impact moldings

NOTE:

- **Centering holes for side impact molding must be drilled on a new bumper before painting.**

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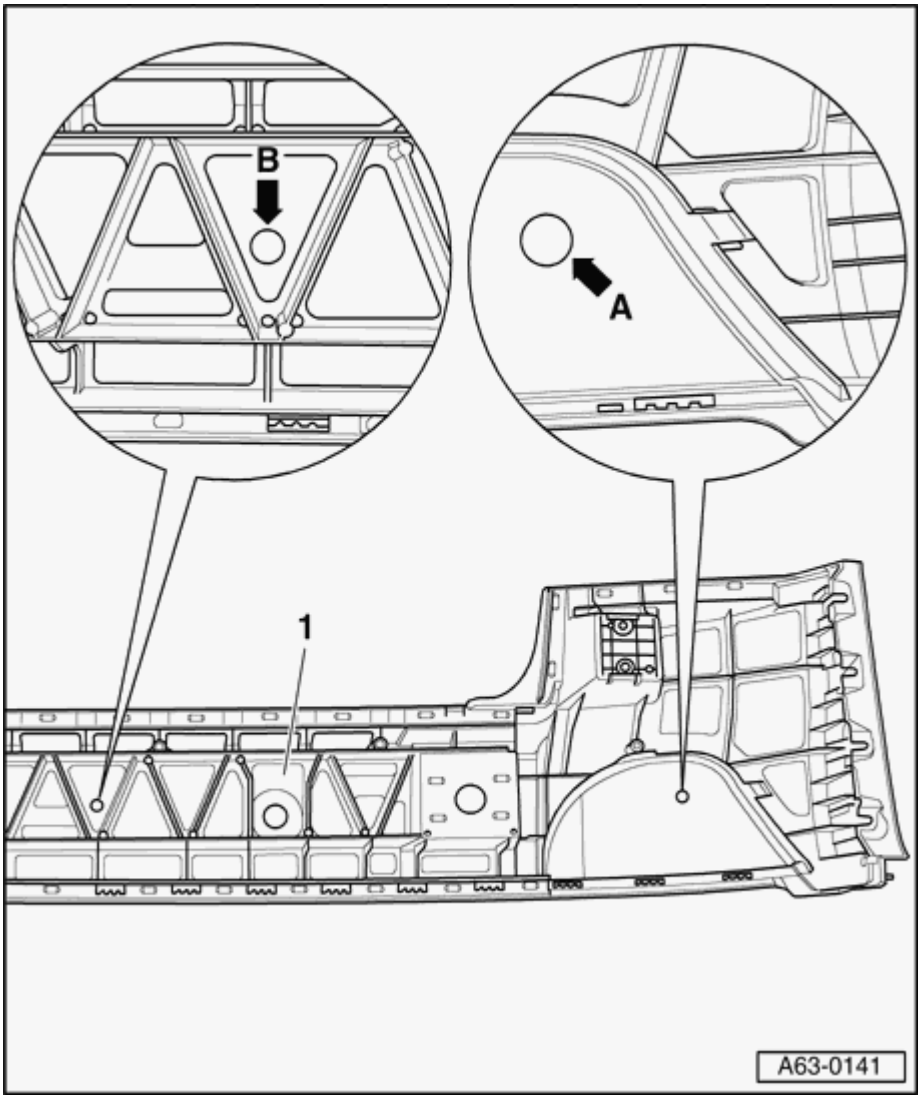


Fig. 204: Centering Holes For Side Impact Moldings
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Rear bumper

- Markings for centering holes are positioned on the inside of the cover - **arrows** - as shown.
- Drill through cover at these locations (3x) using a drill bit 8.5mm before painting.

Adhering centering pins on side impact molding

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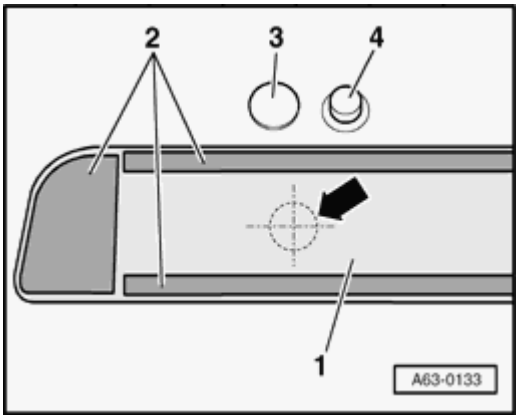


Fig. 205: Adhering Centering Pins On Side Impact Molding
Courtesy of VOLKSWAGEN UNITED STATES, INC.

NOTE:

- **Adhesive - 3 - and centering pin - 4 - (3x each) are in delivery casing of side impact molding - 1 -.**

- Remove protective foil from the double-sided adhesive - **3** - and adhere it onto centering pin - **4** -.
- Remove second protective foil and position centering pin onto marking - **arrow** - on side impact molding.
- Remove protective foils from double-sided adhesive strips - **2** - and press side impact molding - **1** - onto bumper.

REAR BUMPER (AVANT)

Bumper, removing and installing

Up to Vehicle Identification Number (VIN) 400 000

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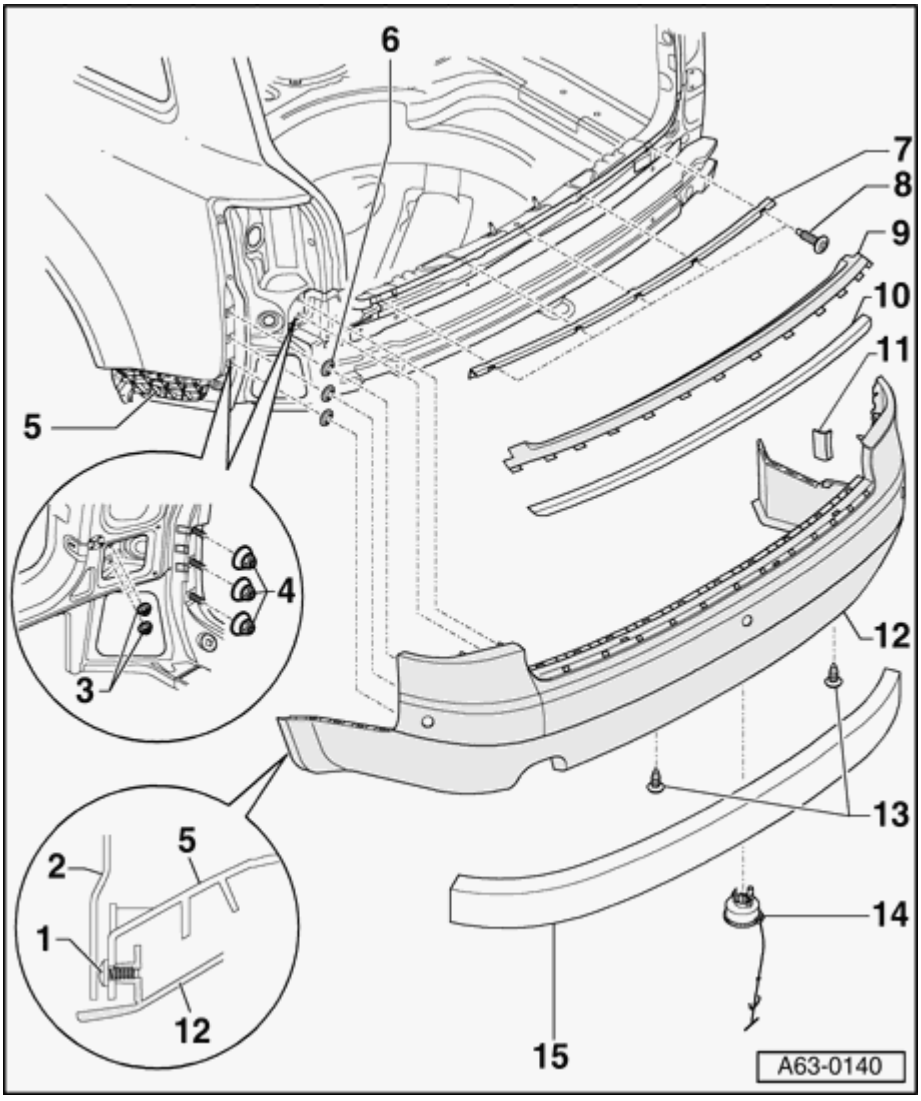


Fig. 206: Rear Bumper (Avant), Removing And Installing (Up To Vehicle Identification Number (VIN) 400 000)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Bolt

- 1 Nm

2 - Wheelhousing liner

3 - Combination nut

- 4 Nm

4 - Cap nut

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- 4 Nm

5 - Guide piece

- Removing and installing --> **Guide piece, removing and installing**

6 - Grommet

- Grommets must be pressed in before assembling cover.

7 - Supporting strip

8 - Sheet-metal screw

- 2 Nm

9 - Sealing strip

- Clipped in cover - **12** -

10 - Trim molding

- Clipped in cover - **12** -

11 - Side sealing strip

- Clipped in cover - **12** -

12 - Cover

- Two-piece version
- One-piece version (for USA)
- **Removing:**
- Remove side luggage compartment trim. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
- Remove bass loudspeaker. -->
  - **91 - COMMUNICATION**
  - **91 RADIO, TELEPHONE, NAVIGATION, TRIP COMPUTER** for COMMUNICATION, CABRIOLET
- Disconnect electrical harness connectors to parking aid sensors at control module (under tail light, left side).
- Remove combination nuts - **3** - and special nuts - **4** - (accessible from luggage compartment).

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- Unscrew bolts - **13** -.

- Unscrew wheel housing liners - **2** - in rear area.
- Remove bolts - **1** - at left and right on guide piece - **6** -
- Unclip cover side-pieces on guide piece.
- Remove cover.

- Separating two-piece cover:
- Drill off rivet heads from pop rivets at left and right.
- Disengage locking tabs and separate both pieces of cover.
- **Installing:**

- Install in reverse order of removal.
- When installing a new bumper cover, insert a new support piece - **14** - into cover.
- Disengage support piece only when bumper cover is completely installed **Disengaging support piece**.

13 - Bolt

14 - Support piece

- Replace when installing a new bumper cover
- Disengage only when bumper cover is completely installed **Disengaging support piece**

15 - Side impact molding

- Replace
- Side impact moldings are secured to bumper with double-sided adhesive tape.
- It is not possible to remove without destroying.
- To remove, pull side impact molding away from bumper.

- Remove any residual adhesive on bumper.
- Installing on new bumper

NOTE:

- **Centering holes for side impact molding must be drilled on a new bumper before painting.**
- **Position centering holes for side impact moldings --> Centering holes for side impact moldings.**

As of Vehicle Identification Number (VIN) 400 001

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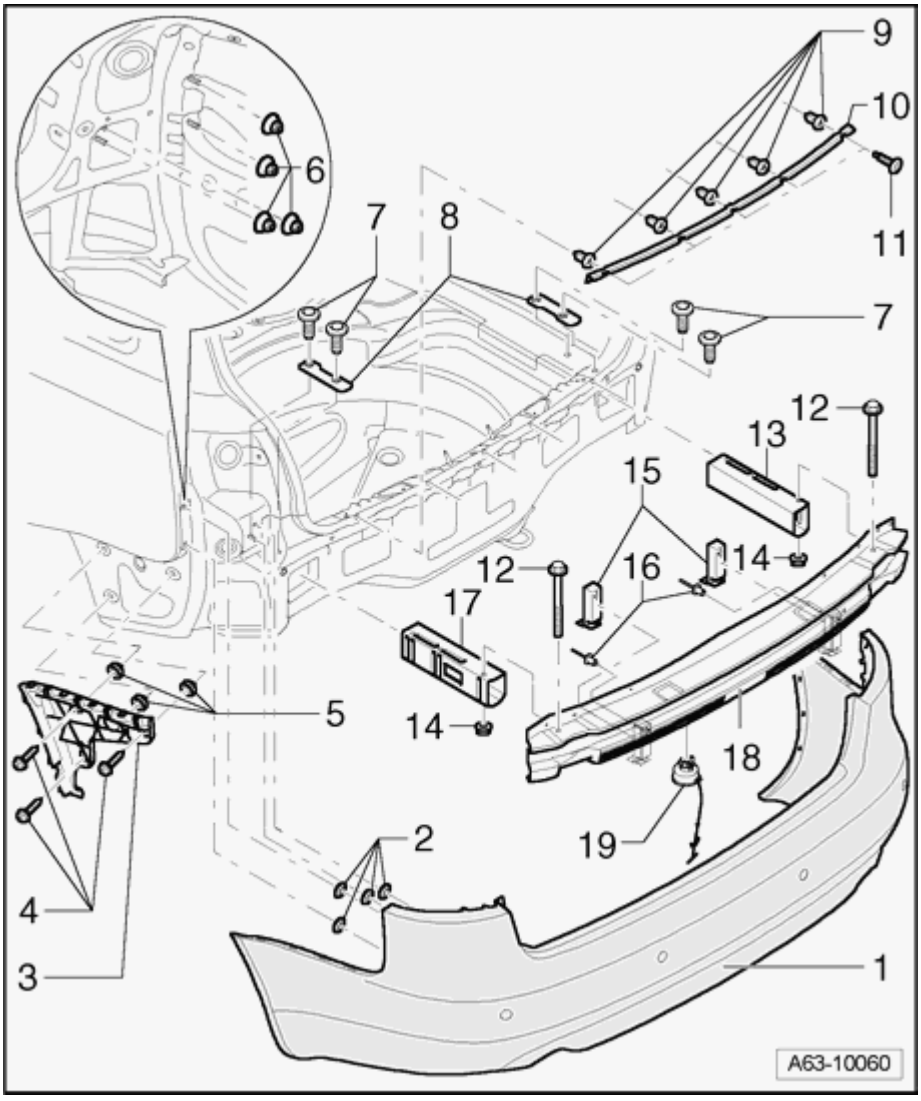


Fig. 207: Rear Bumper (Avant), Removing And Installing (As Of Vehicle Identification Number (VIN) 400 001)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Cover

- **Removing:**

  - Remove side luggage compartment trim. -->
    - **70 - INTERIOR TRIM**
    - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
  - Disconnect electrical harness connectors to parking aid sensors at control module (under tail light, left side).
  - Remove special nuts - (accessible from luggage compartment).
  - Remove special nuts - **Cap nuts**- (accessible from luggage compartment).

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- Unscrew wheel housing liners in rear area.
- Remove bolts left and right on guide piece - **3** -
- Unclip cover side-pieces on guide piece.
- Remove cover.

- Separating two-piece cover:
- Disengage locking tabs and separate both pieces of cover.

-

2 - Guide piece

3 - Combination bolts

4 - Expanding rivet

- Pressed into side panel at bottom

5 - Cap nut

- 4 Nm

6 - Base plate

- Must always be installed.

7 - Combination bolt

- 18 Nm

8 - Base plate

- Must always be installed.

9 - Expanding clip

- Qty. 5 inserted in rear cross panel.

10 - Supporting strip

11 - Sheet-metal screw

- 2.5 Nm

12 - Combination bolt

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- 18 Nm

13 - Right holder for bumper

- Bumper removed
- Remove combination bolt - **12** - and pull shock absorber out of bumper.

14 - Hex nut

- 18 Nm
- Counterhold when tightening combination bolt - **8** -.

15 - Bracket

- Riveted to bumper.

16 - Pop rivet

17 - Left holder for bumper

- Remove combination bolt - **8** - and pull shock absorber out of bumper.

18 - Bumper

- Cover - **1** - removed.
- Remove combination bolts - **6** - at left and right and pull out bumper toward rear.

19 - Support piece

- Replace when installing a new bumper cover
- Disengage only when bumper cover is completely installed **Disengaging support piece**

Country version

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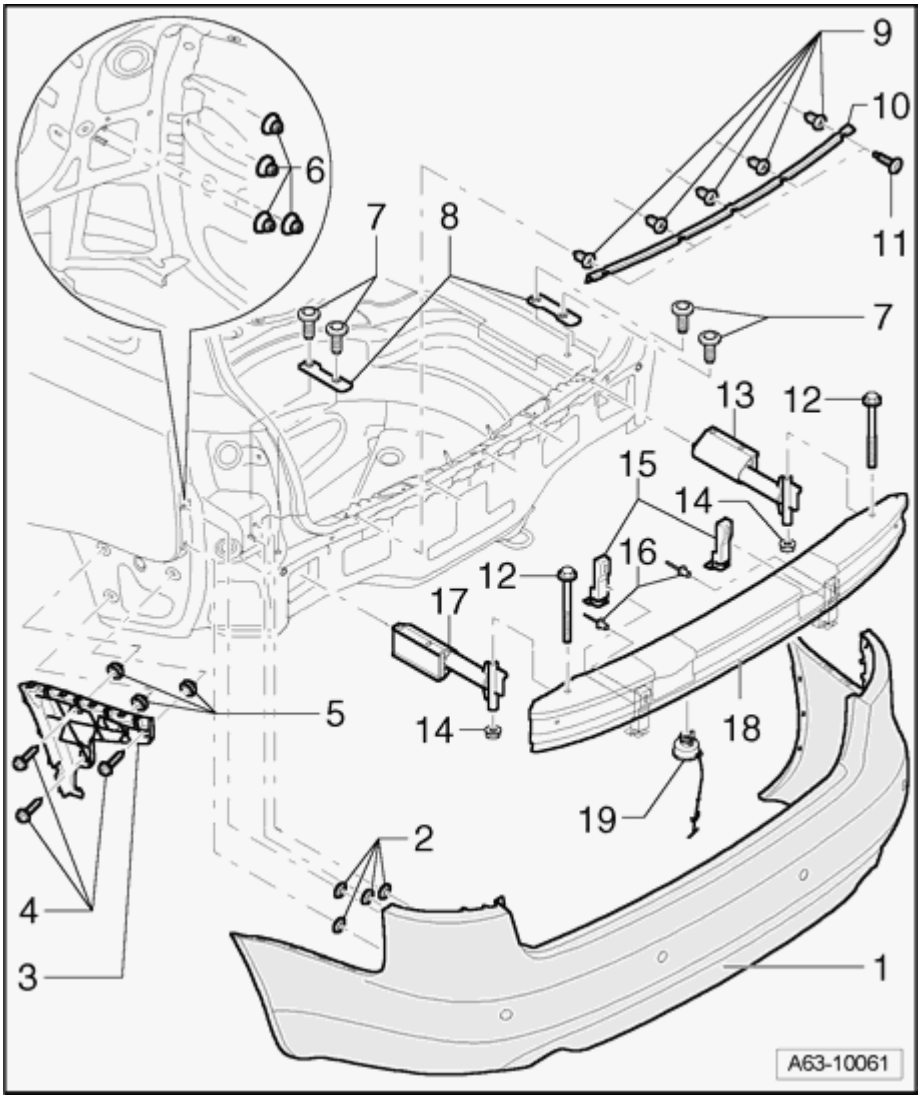


Fig. 208: Rear Bumper (Avant), Removing And Installing (Country Version)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Cover

- **Removing:**

  - Remove side luggage compartment trim. -->
    - **70 - INTERIOR TRIM**
    - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
  - Disconnect electrical harness connectors to parking aid sensors at control module (under tail light, left side).
  - Remove special nuts - (accessible from luggage compartment).
  - Remove special nuts - **Cap nuts**- (accessible from luggage compartment).

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- Unscrew wheel housing liners in rear area.
- Remove bolts left and right on guide piece - **3** -
- Unclip cover side-pieces on guide piece.
- Remove cover.

- Separating two-piece cover:
- Disengage locking tabs and separate both pieces of cover.

-

2 - Guide piece

3 - Combination bolts

4 - Expanding rivet

- Pressed into side panel at bottom

5 - Cap nut

- 4 Nm

6 - Base plate

- Must always be installed.

7 - Combination bolt

- 18 Nm

8 - Base plate

- Must always be installed.

9 - Expanding clip

- Qty. 5 inserted in rear cross panel.

10 - Supporting strip

11 - Sheet-metal screw

- 2.5 Nm

12 - Combination bolt

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- 30 Nm

13 - Right shock absorber for bumper

- Bumper removed
- Remove combination bolt - **12** - and pull shock absorber out of bumper.

14 - Hex nut

- 30 Nm
- Counterhold when tightening combination bolt - **8** -.

15 - Bracket

- Riveted to bumper.

16 - Pop rivet

17 - Left shock absorber for bumper

- Remove combination bolt - **8** - and pull shock absorber out of bumper.

18 - Bumper

- Cover - **1** - removed.
- Remove combination bolts - **6** - at left and right and pull out bumper toward rear.

19 - Support piece

- Replace when installing a new bumper cover
- Disengage only when bumper cover is completely installed **Disengaging support piece**

Centering holes for side impact moldings

Up to Vehicle Identification Number (VIN) 400 000

NOTE:

- **Centering holes for side impact molding must be drilled on a new bumper before painting.**

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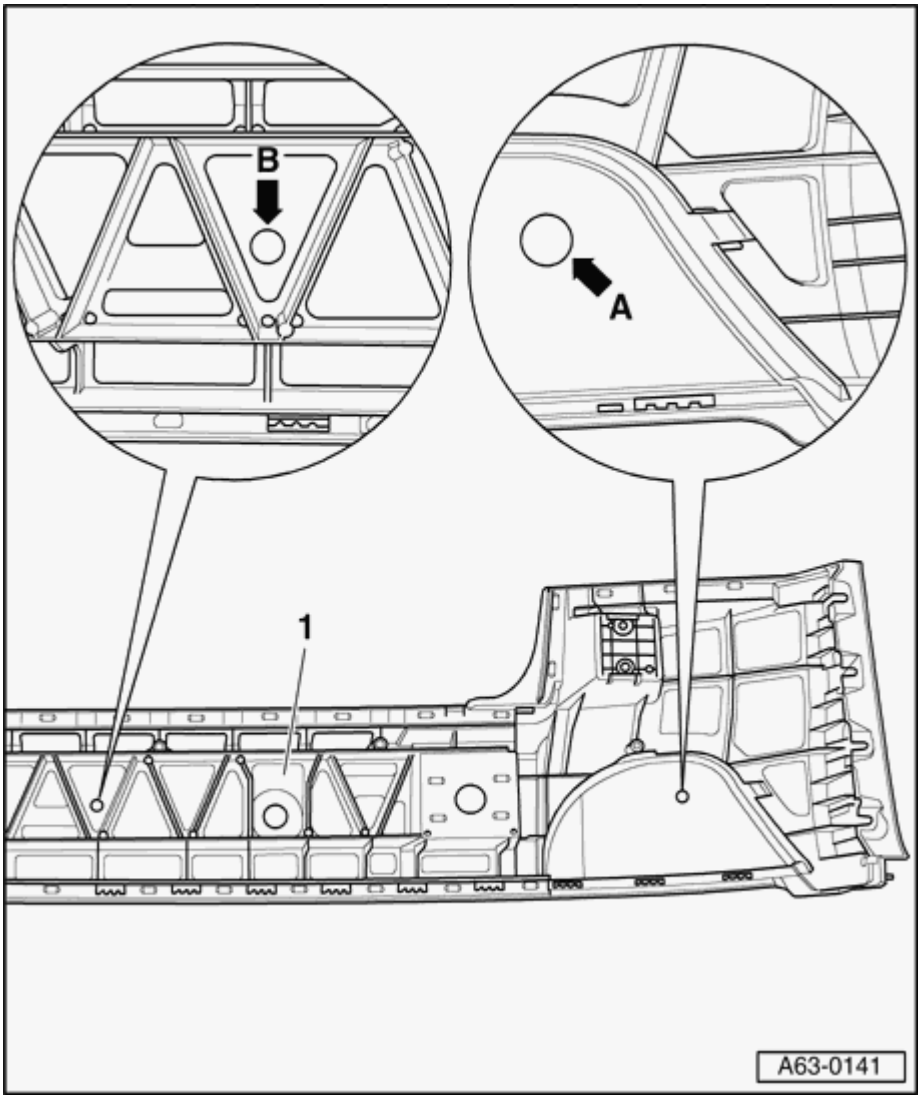


Fig. 209: Centering Holes For Side Impact Moldings
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Rear bumper

- Markings for centering holes are positioned on the inside of the cover - **arrows** - as shown.
- Drill through cover at these locations (3x) using a drill bit 8.5 mm before painting.

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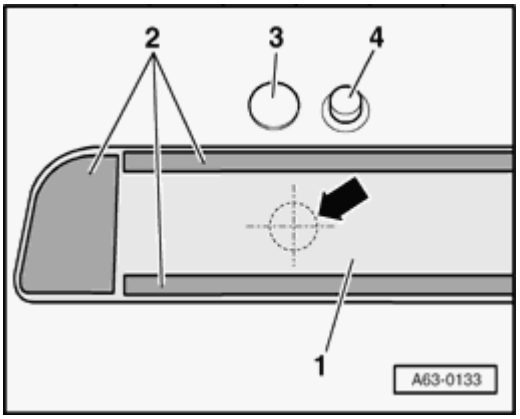


Fig. 210: Adhering Centering Pins On Side Impact Molding
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Adhering centering pins on side impact molding

NOTE:

- **Adhesive - 3 - and centering pin - 4 - (3x each) are in delivery casing of side impact molding - 1 -.**

- Remove protective foil from the double-sided adhesive - **3** - and adhere it onto centering pin - **4** -.
- Remove second protective foil and position centering pin onto marking - **arrow** - on side impact molding.
- Remove protective foils from double-sided adhesive strips - **2** - and press side impact molding - **1** - onto bumper.

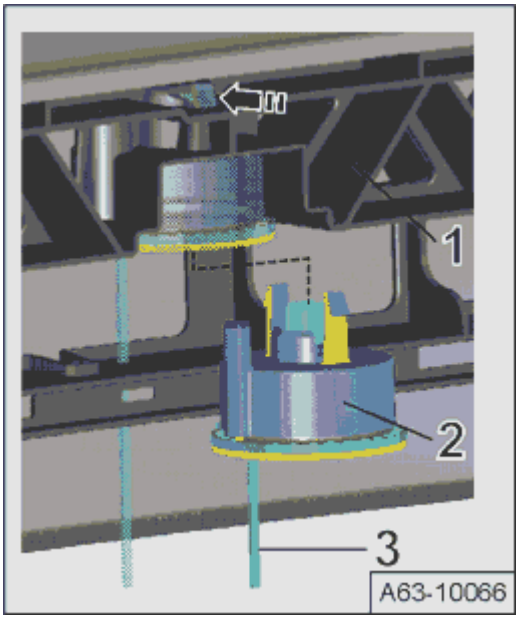


Fig. 211: Installing Support Piece
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Installing support piece

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NOTE:

- **Support piece must be installed only with a new bumper cover.**

- To remove, press catch - **arrow** - to the side and pull support piece downward out of cover - **1** -.
- Insert support piece - **2** - into cover as shown and let engage inside.
- Disengaging cord must be removed only when the cover is installed completely.

Disengaging support piece

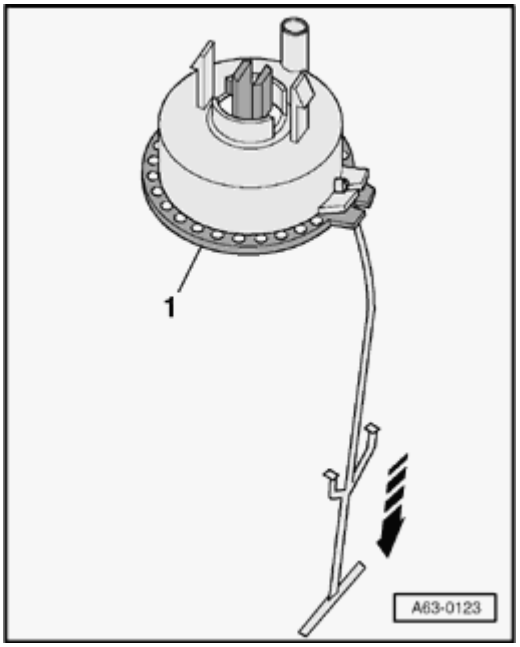


Fig. 212: Disengaging Support Piece
Courtesy of VOLKSWAGEN UNITED STATES, INC.

CAUTION: Never disengage support piece in the removed condition - danger of injury.

When re-installing the old bumper cover, the old support piece remains installed.

- When replacing the bumper cover, a new support piece must be clipped into the bumper cover from below.
- After completely installing bumper cover, disengage support piece by pulling on disengaging cord - **arrow** -.

NOTE:

- **By pulling disengaging cord, tension is released from support piece and reinforces the bumper cover against the crossmember.**

Guide piece, removing and installing

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Up to Vehicle Identification Number (VIN) 400 000

- Bumper removed.

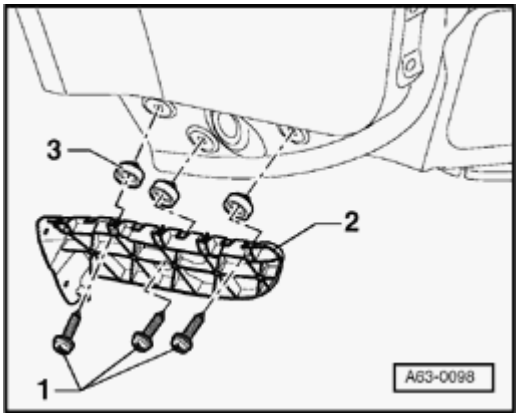


Fig. 213: Guide Piece Remove/Install Components (Up To Vehicle Identification Number (VIN) 400 000)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove bolts - **1** - and remove guide piece - **2** -.
- Tightening torque: 1.5 Nm
- Clip - **3** - pressed into side panel.

As of Vehicle Identification Number (VIN) 400 001

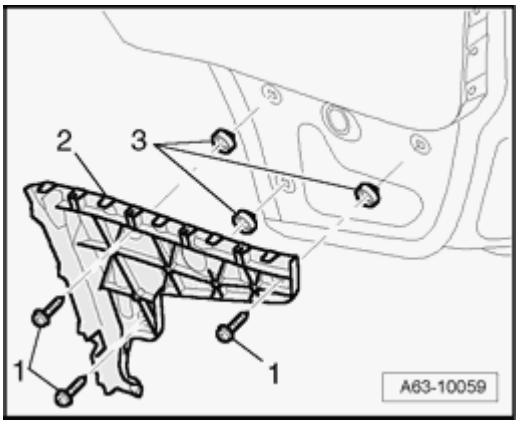


Fig. 214: Guide Piece Remove/Install Components (As Of Vehicle Identification Number (VIN) 400 001)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Bumper removed.
- Remove bolts - **1** - and remove guide piece - **2** -.
- Expanding clip - **3** - pressed into side panel.

Crossmember for bumper, removing and installing

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NOTE:

- **Bumper cover removed.**

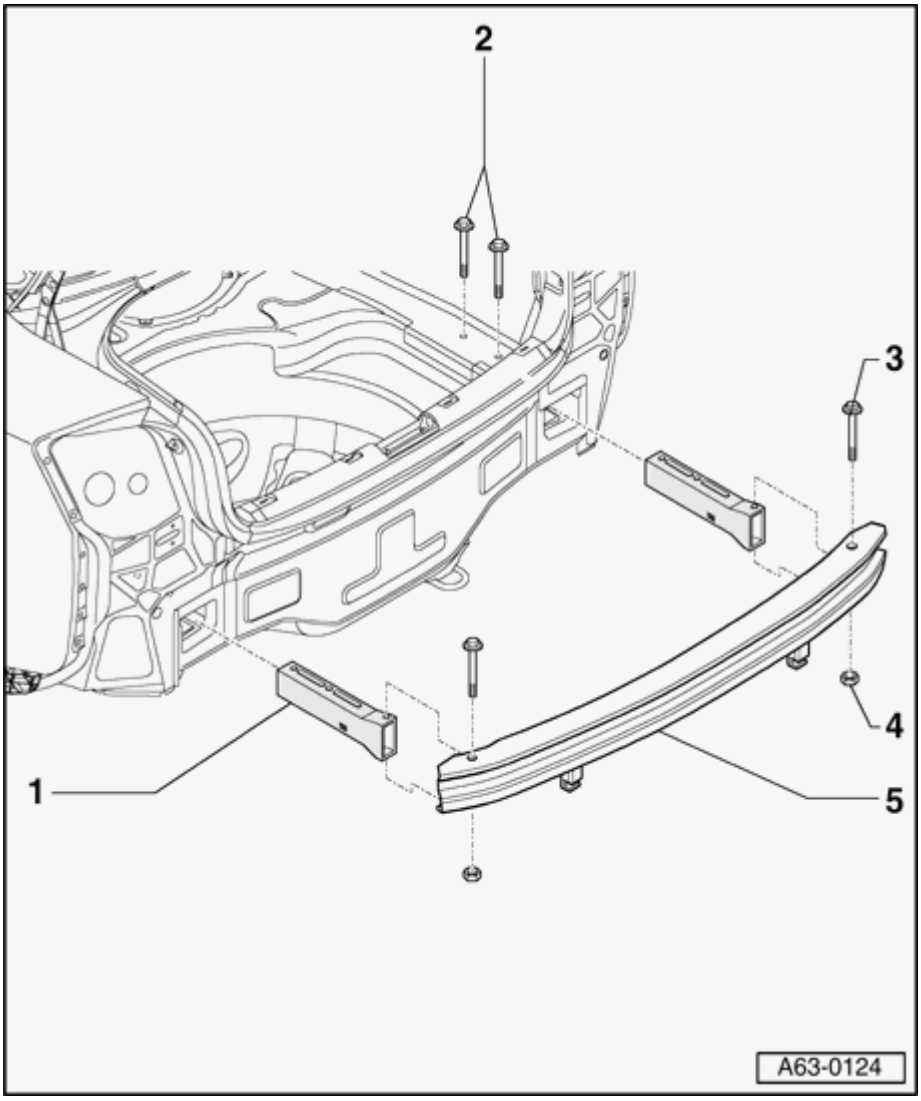


Fig. 215: Crossmember For Bumper Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Shock absorber

2 - Bolt

- 10 Nm
- 4x

3 - Bolt

- 20 Nm

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- 2x

4 - Nut

- 20 Nm
- 2x

5 - Cross member

USA version

NOTE:

- **Bumper cover removed.**

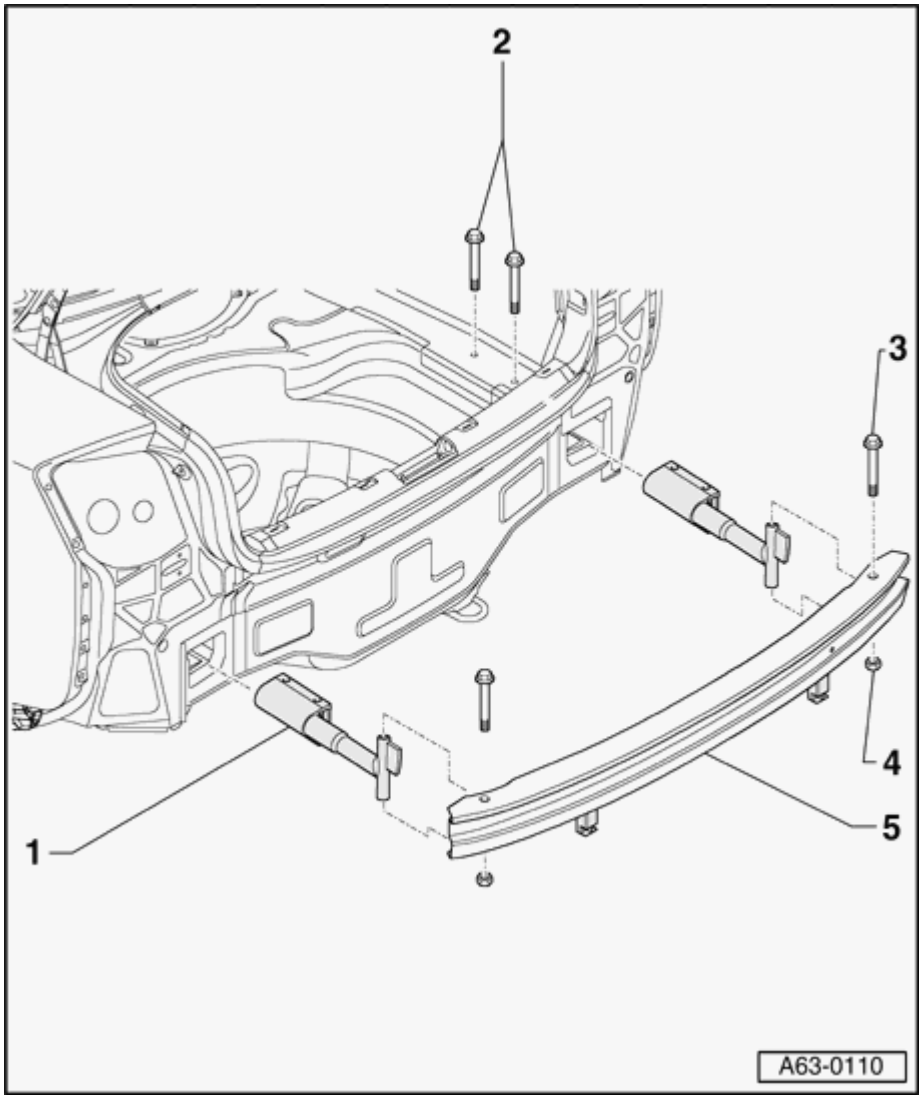


Fig. 216: Crossmember For Bumper Remove/Install Components (USA Version)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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1 - Shock absorber

2 - Bolt

- 10 Nm
- 4x

3 - Bolt

- 20 Nm
- 2x

4 - Nut

- 20 Nm
- 2x

5 - Cross member

Crossmember for bumper (vehicles with trailer hitch), removing and installing

NOTE:

- **Bumper cover removed.**

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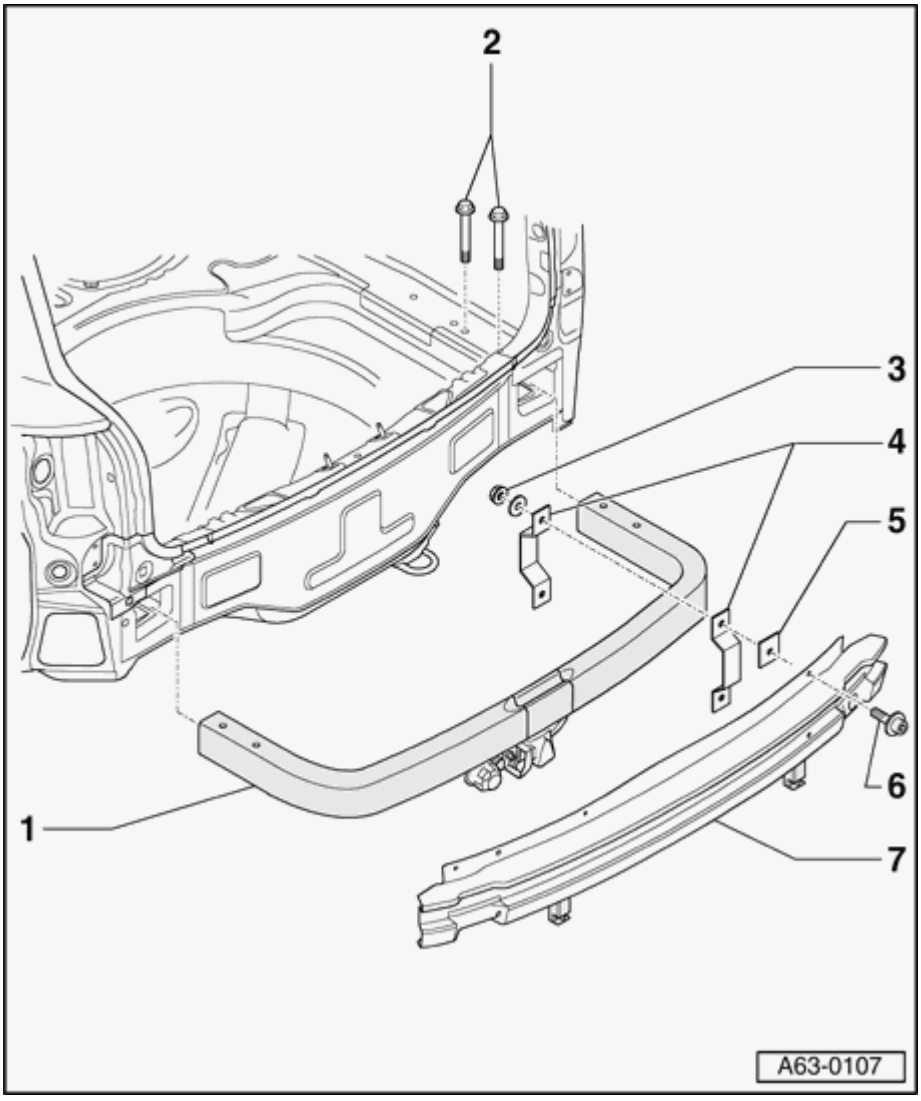


Fig. 217: Crossmember For Bumper (Vehicles With Trailer Hitch) Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Trailer hitch carrier

2 - Bolt

- 60 Nm
- 4x

3 - Nut

- 23 Nm
- 2x

4 - Mounting clamps

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- 4x

5 - Spacer

- 2x

6 - Bolt

- 23 Nm
- 2x

7 - Cross member

Threaded plate for trailer hitch

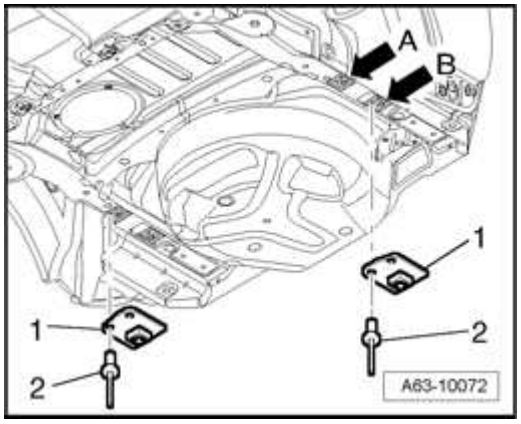


Fig. 218: Threaded Plate For Trailer Hitch
Courtesy of VOLKSWAGEN UNITED STATES, INC.

NOTE:

- **Note the various mounting points for the threaded plate.**
- **- Arrow A - as of Vehicle Identification Number (VIN) 400 001**
- **- Arrow B - up to Vehicle Identification Number (VIN) 400 000**

- Contact surface of threaded plate must be clean and even.
- Mount threaded plate - **1** - with pop rivets - **2** - starting from outside working toward inside.

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64 - GLASS, WINDOWS

FLUSH-BONDED WINDOWS

Flush-bonded windows, removing and installing - general information

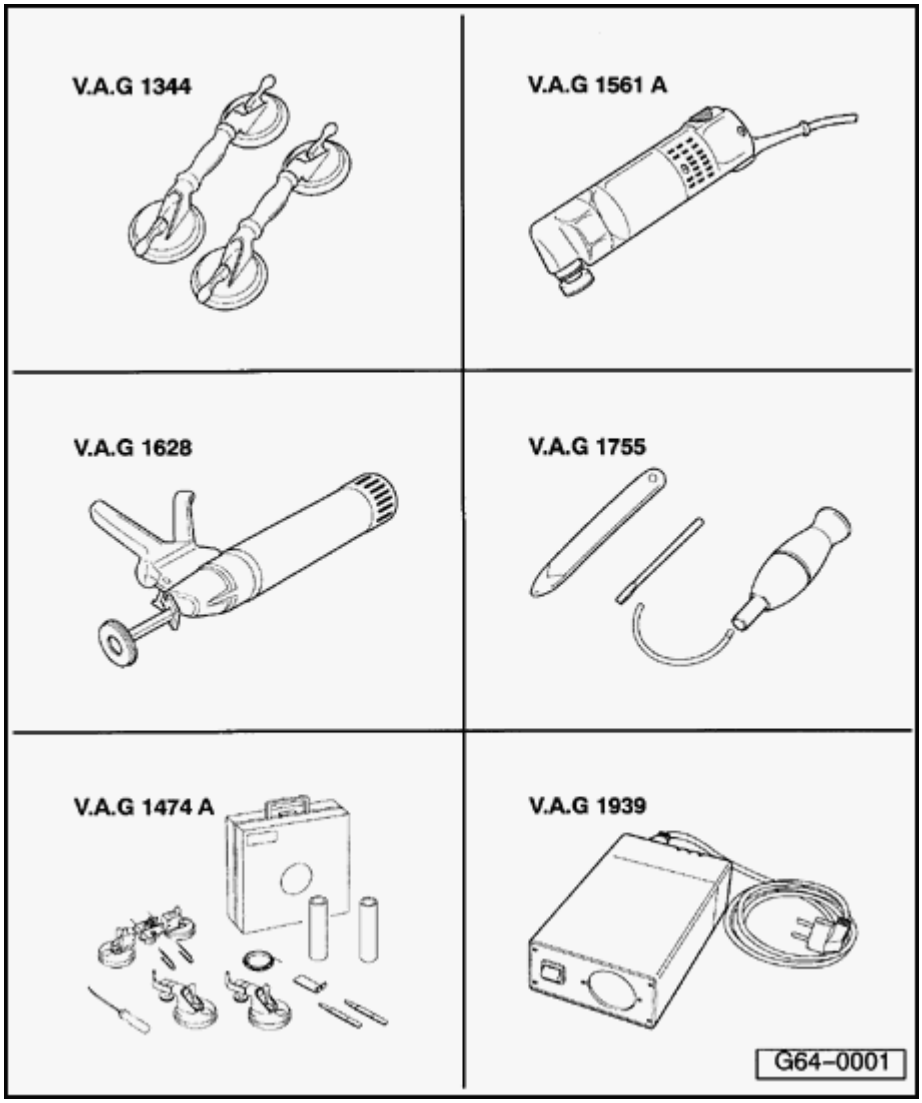


Fig. 311: Identifying Special Tools - Flush-Bonded Windows, Removing And Installing - General Information
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Special tools, testers and auxiliary items required

- Suction lifter V.A.G 1344
- Electric Cutter V.A.G 1561 A with V.A.G 1561/10 and V.A.G 1561/11

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- Cartridge gun V.A.G 1628
- Window Removing Kit V.A.G 1755 or Cutting Tools for Glass V.A.G 1351
- Cutting tool kit V.A.G 1474 A
- Cartridge heater V.A.G 1939

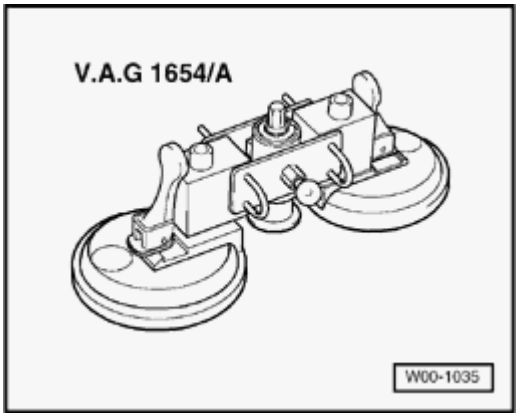


Fig. 312: Spooling Tool V.A.G 1654 A
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Spooling tool V.A.G 1654 A

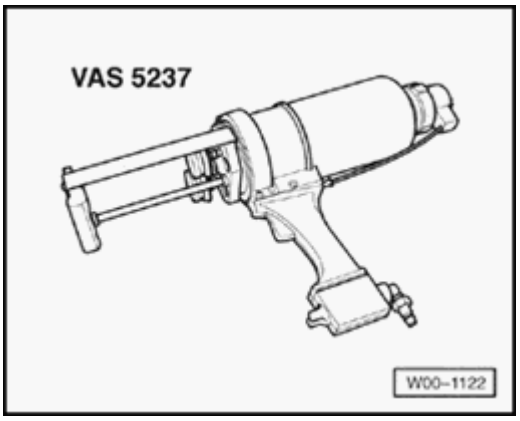


Fig. 313: Double Cartridge Gun VAS 5237
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Double cartridge gun VAS 5237
- *Cutting cord 357 853 999*

Windows, repairing with Talon Repair Resin VAS 1993/2

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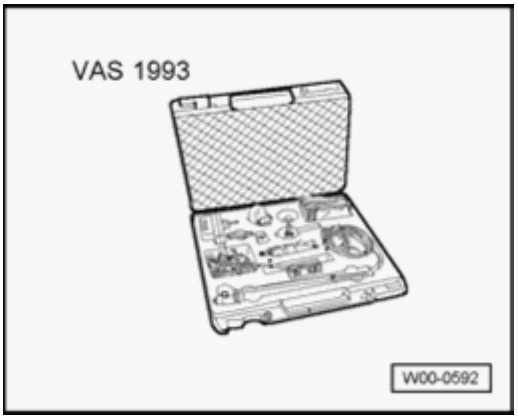


Fig. 314: Windshield Repair Set VAS 1993
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Special tools, testers and auxiliary items required

- Window repair kit VAS 1993 or VAS 6092

NOTE:

- **Windshields damaged with stone chips can be repaired with Talon Repair Resin VAS 1993/2.**
- **These damaged areas must not exceed a certain dimension or lie within the drivers field of sight.**
- **For further details on use, refer to Users Manual enclosed with each kit.**

Materials

• *Set 2C- window adhesive DA 004 600 A2* * See note
• *1K window adhesive DH 009 100 03* * See note
• *Glass and paint primer D 009 200 02*
• *Cleaning solution D 009 401 04*
• *Applicator D 009 500 25*
• *Adhesive remover D 002 000 10*
• *Cutting cord 357 853 999*
• *Cutting cord 357 845 955*

* Observe minimum curing time --> **Minimum curing times**.

* Double cartridge pistol VAS 5237 must be used to process this material.

* Heat according to manufacturers instructions using cartridge heater V.A.G 1939 A.

*Small cartridge (110 ml) for sealing and/or when a 400 ml double cartridge is not sufficient.

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Minimum curing times

CAUTION:

- **For safety reasons, use only electrically non-conductive 2C-adhesive when installing windshield using the materials listed below.**
- **Vehicle is only safe for operation after minimum curing time has elapsed and only then may it be used.**

Window type	Vehicle	Adhesive sealing material	Curing time in hours
Windshield	With airbag	DA 004 600 A2	3

Cleaning when soiled by adhesive sealing material

Adhesive removal solution D 002 000 10 is the recommended cleaning solution. Observe safety precautions when processing.

CAUTION: When cleaning from vehicle interior out, the window just installed must not be pressed outward.

Paint surfaces

- First, clean paint surfaces with a dry cloth. Remove further material using *adhesive removal solution D 002 000 10* .

Plastic trim

- Allow adhesive sealing material to harden (about 1 hour) and then peel off.

WINDSHIELD

Trim, removing

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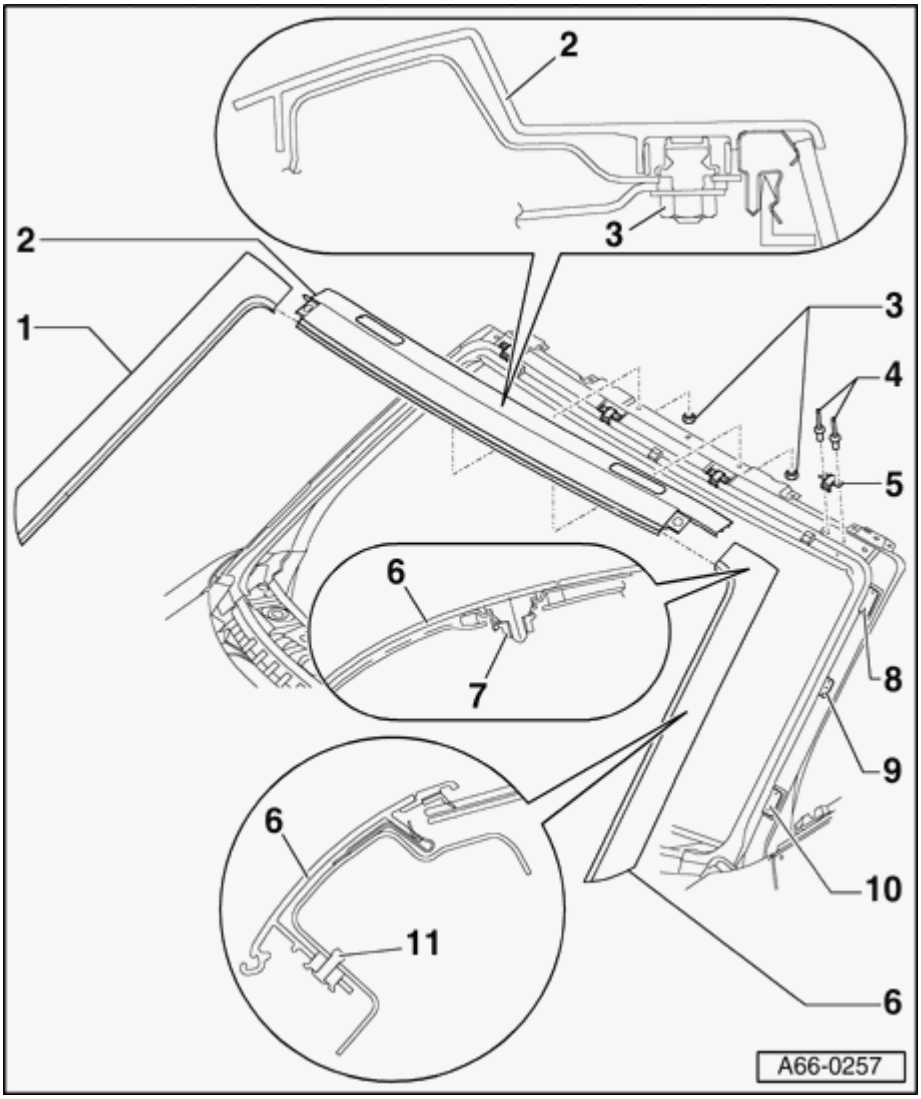


Fig. 315: A-Pillar And Roof Frame Trim, Removing Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Right A-pillar trim

- Remove A-pillar trim.
- Remove door seal in A-pillar area.
- Bore out side hollow rivet heads **A-pillar trim, removing** (Qty. 3), drive rivet shafts out and remove trim.

2 - Roof frame trim

- Remove roof frame trim.
- Remove left and right A-pillar trim.

3 - Nut

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- 6.5 Nm

4 - Pop rivet

5 - Retaining clamp

6 - Left A-pillar trim

- Removal is same as right trim.

7 - Nut

- 6.5 Nm

8 - Retaining clamp

- Movable

9 - Retaining clamp

- Fixed

10 - Retaining clamp

- Movable

A-pillar trim, removing

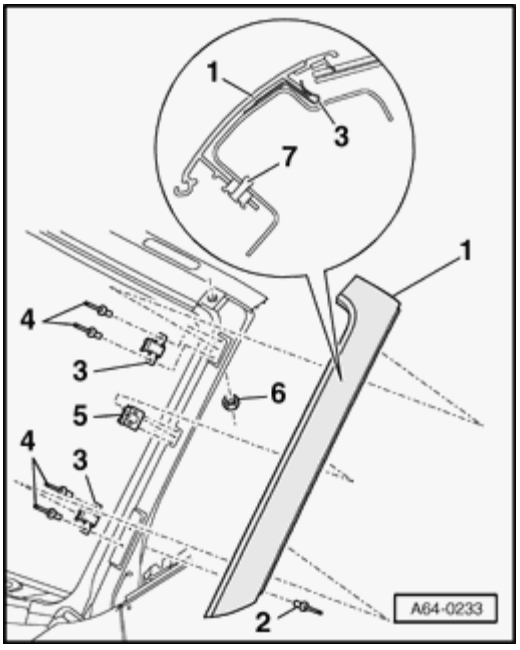


Fig. 316: A-Pillar Trim, Removing Overview

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove door seal in A-pillar area and remove A-pillar trim.
- Remove nut - **6** -.
- Drill rivet heads off hollow rivets - **2** - and - **7** - and knock rivet shafts through.
- Remove trim - **1** -.

- Upper and lower retaining clips - **3** - must move to balance out tolerances.
- Retaining clip - **5** - is fixed. It is secured to A-pillar with hollow rivets - **4** -.

Windshield - assembly overview

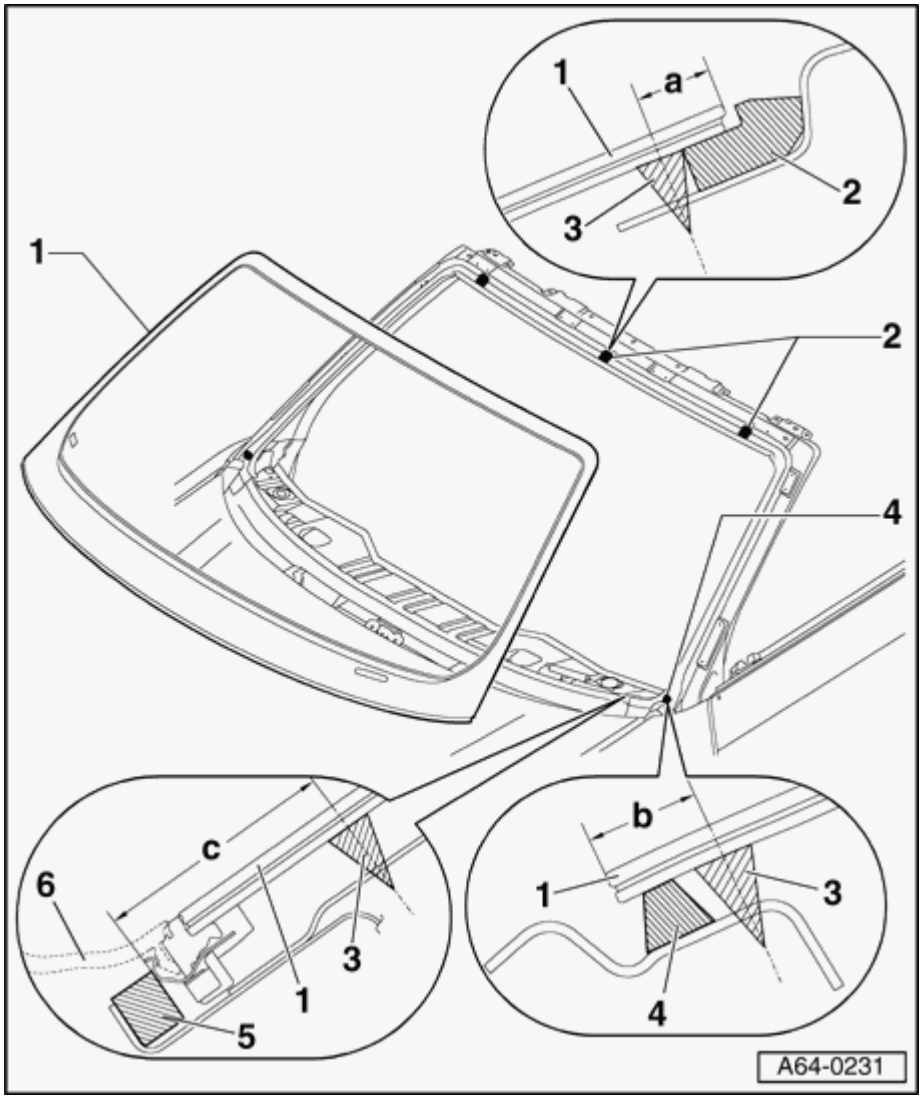


Fig. 317: Windshield - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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1 - Windshield

- Removing --> **Windshield, removing**.
- Installing --> **Preparing for window installation**.
- Align distance - **d** - at sides.

NOTE:

- **Stickers on windshield (e.g. for airbag) must be replaced in same position on new windshield.**

2 - Upper spacer buffer

- Qty. 3, self-adhesive.
- Attach in regular intervals to retaining strip.
- Attach 1 in center of vehicle on window flange at a distance of 430 mm to left and right.

3 - Adhesive sealing material

- Observe curing times --> **Minimum curing times**.
- Note varying spacing dimensions to window edge.
- Distances from upper and side window edge, dimension - **a** - = 16 mm and dimension - **b** - = 12 mm.
- The distance on the lower window edge is measured from the outer side of the clip outward.
- The distance to the lower window edge does not run in parallel distance to window edge.
- Distances **Windshield, installing**.
- Bead cross section.
- Bead width = 8 mm + +2 mm.
- Bead height = 13.5 mm + +1.5 mm.

4 - Lower spacer buffer

- Qty. 2, self-adhesive.
- Attach in corners on lower window edge.

5 - Window adjuster

- Slide sideways on lower window edge as far as stop.

6 - Plenum chamber cover

- Pull protective piping from retaining strip before installing plenum chamber cover **Removing protective piping for grip channel**.
- Press into fastening strip only after window adhesive curing time has elapsed.

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Removing protective piping for grip channel

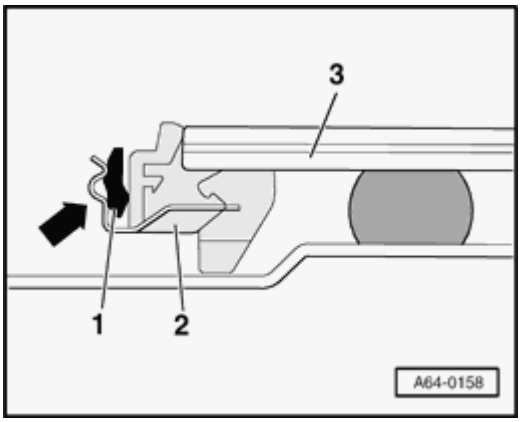


Fig. 318: Removing Protective Piping For Grip Channel
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull off protective piping from grip channel only after installing window.
- Before installing plenum chamber cover, protective piping - **1** - must be pulled out of grip channel - **2** - of windshield - **3** -.

Rain sensor, removing and installing

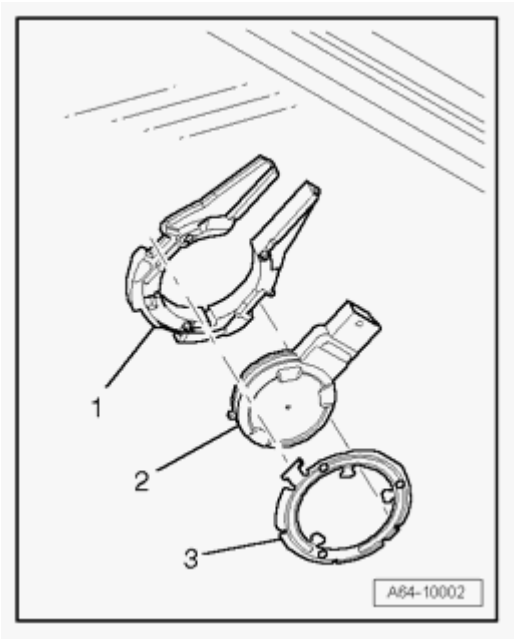


Fig. 319: Rain Sensor Remove/Install Components
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Removing rain sensor

NOTE:

- **If the sensor foil is damaged when removing rain sensor, this must be**

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replaced before re-installing.

- Rearview mirror removed -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
- Remove clamps - **3** - from mirror base retaining plate - **1** -.
- Disconnect electrical connector to rain sensor.
- Remove rain sensor from mirror base.

- A sensor foil remains adhered to the windshield.
- If the same windshield is reinstalled, remove this completely from the windshield.
- Clean the surface with cleaning solution D 009 401 04.

Installing rain sensor

NOTE:

- **If the same rain sensor is reinstalled, proceed as described.**

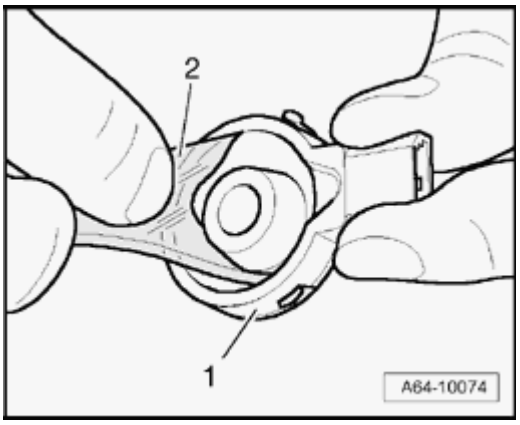


Fig. 320: Removing Rest Of The Sensor Foil From Rain Sensor
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove the rest of the sensor foil from the rain sensor, if necessary.
- Also clean the surface with cleaning solution D 009 401 04.

CAUTION: Sensor surface must be completely free of foil remnants.

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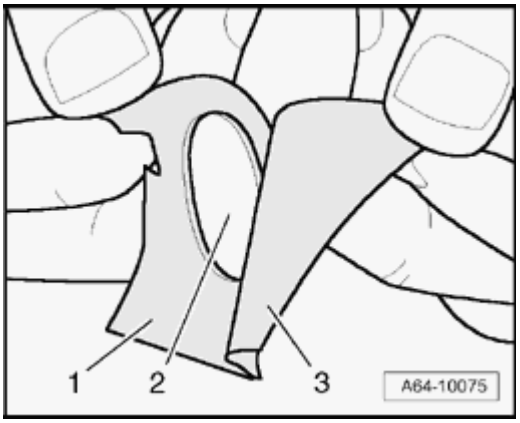


Fig. 321: Removing Silicone Paper From Sensor Foil
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove silicone paper from sensor foil.
- The transparent protective film remains on the sensor foil as an installation aid.

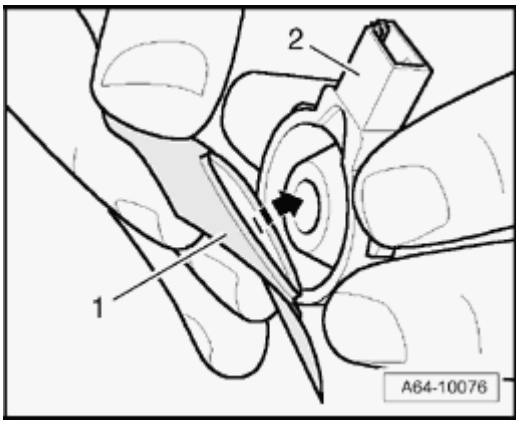


Fig. 322: Placing Sensor Foil On Rain Sensor With Help Of Transparent Protective Foil
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Place sensor foil on rain sensor with help of transparent protective foil.

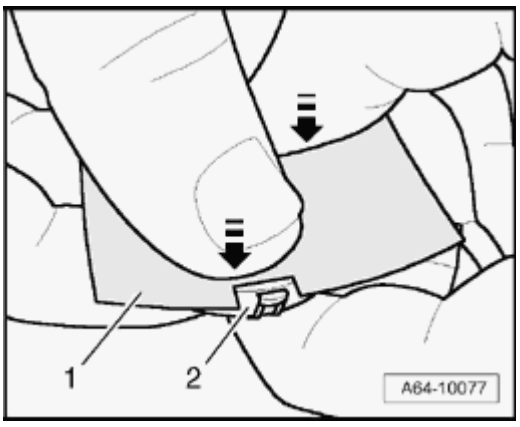


Fig. 323: Pressing Sensor Foil Onto Rain Sensor Without Bubbles

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Press sensor foil as shown in - **direction of arrow** - onto rain sensor without bubbles.

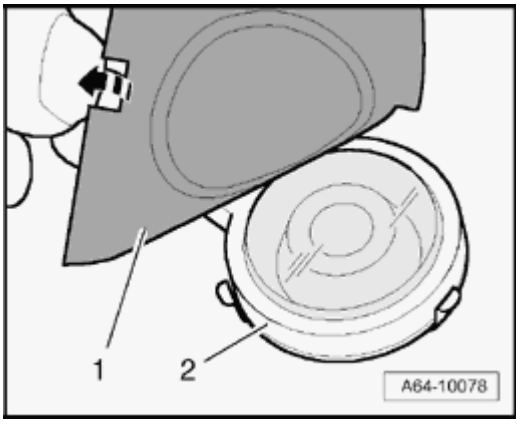


Fig. 324: Removing Transparent Protective Foil From Sensor Foil
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Then remove transparent protective foil from sensor foil.

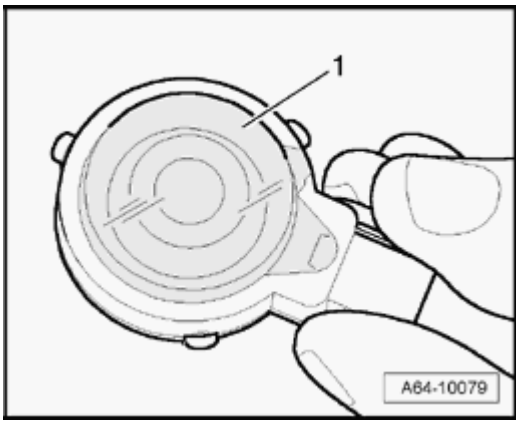


Fig. 325: Spraying Entire Surface Of Sensor Foil With Cleaning Solution D 009 401 04 And Inserting Sensor In Mirror Base
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Spray entire surface of sensor foil with cleaning solution D 009 401 04 and insert sensor in mirror base.

CAUTION: Rain sensor must be free of inclusions and bubbles on the windshield to function properly.

- Press sensor retaining clamps on mirror base.

Replacing rain sensor

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NOTE:

- **To remove sensor, proceed as described above.**

- If necessary, completely remove foil remnants from windshield.

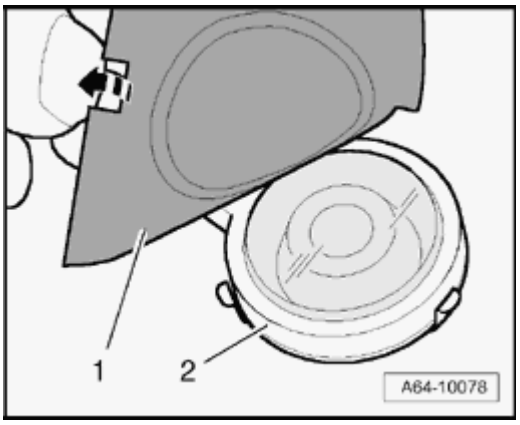


Fig. 326: Cleaning Sensor Contact Surface On Windshield With Cleaning Solution D 009 401 04
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Clean sensor contact surface on windshield with cleaning solution D 009 401 04.

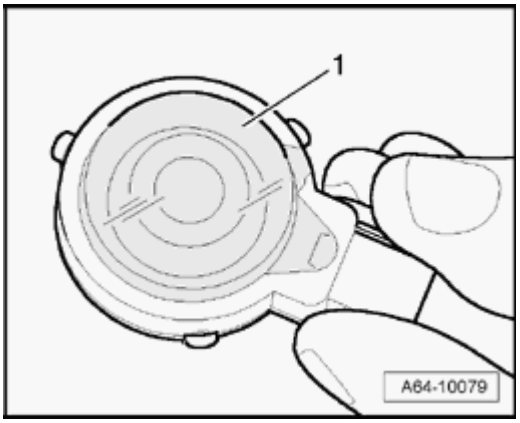


Fig. 327: Spraying Entire Surface Of Sensor Foil With Cleaning Solution D 009 401 04 And Inserting Sensor In Mirror Base
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Peel off protective foil from rain sensor.
- Spray entire surface of sensor foil with cleaning solution D 009 401 04 and insert sensor in mirror base.
- Press sensor onto windshield without bubbles and place retaining clamps on mirror base.

CAUTION: Rain sensor must be free of inclusions and bubbles on the windshield to function properly.

Windshield, removing

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Necessary tools and materials --> **Flush-bonded windows, removing and installing - general information**.

CAUTION: When removing a window, always wear protective eyewear and leather gloves.

- Remove windshield wiper arms -->
  - **92 WINDSHIELD WIPER WASHER SYSTEM**
  - **92 WINDSHIELD WIPER & WASHER SYSTEM** for ELECTRICAL EQUIPMENT, CABRIOLET

  .
- Remove cowl panel trim.

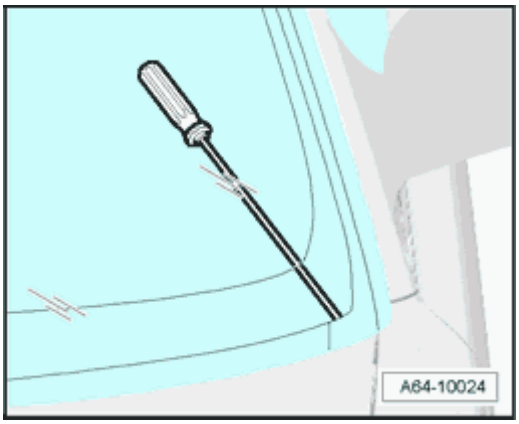


Fig. 328: Piercing Hole In Adhesive Sealing Material From Inside Of Vehicle Using Awl V.A.G 1755 Or Awl V.A.G 1351 At Bottom-Left Of Windshield
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove left, middle and right sun visors -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .
- Remove rearview mirror -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .
- Remove trim from upper A-pillars and top of windshield -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

  .
- Pierce awl from Window Removing Kit V.A.G 1755 or Cutting Tools For Glass V.A.G 1351 through adhesive bead from inside to outside in lower left corner of windshield.

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- Pull cutting cord through adhesive sealing material into inside of vehicle using awl.

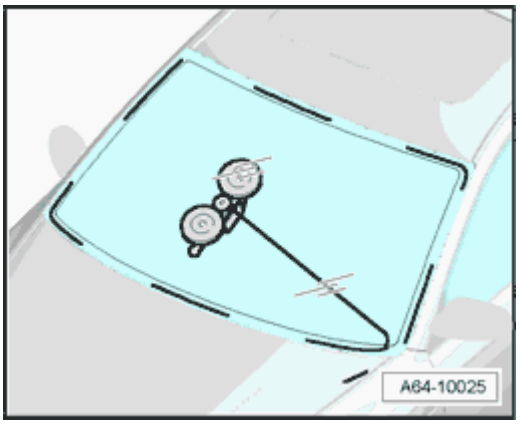


Fig. 329: Laying Cutting Cord Underneath And All Around Inside Of Windshield
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Lay cutting cord underneath and all around inside of windshield.

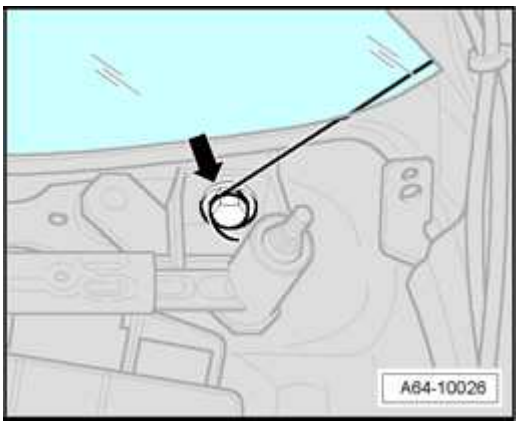
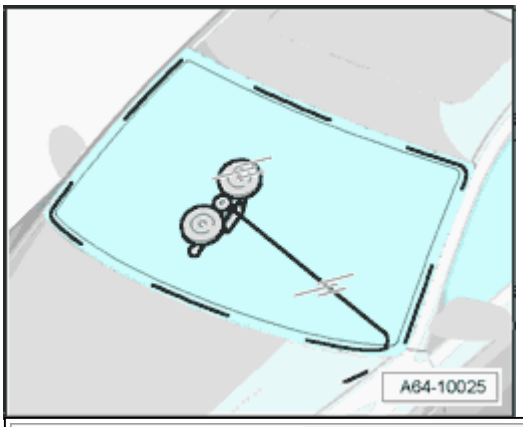


Fig. 330: Securing End Of Cutting Cord At Bolt For Securing Window Wiper Frame
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Secure end of cutting cord at bolt - **arrow** - for securing window wiper frame.



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Fig. 331: Laying Cutting Cord Underneath And All Around Inside Of Windshield
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Slide Cover for Audi A4 Dash Panel V.A.G 1474/13 between windshield and instrument panel.
- Secure beginning of cutting cord in winding device and cut out first area of adhesive (up to about center of windshield).

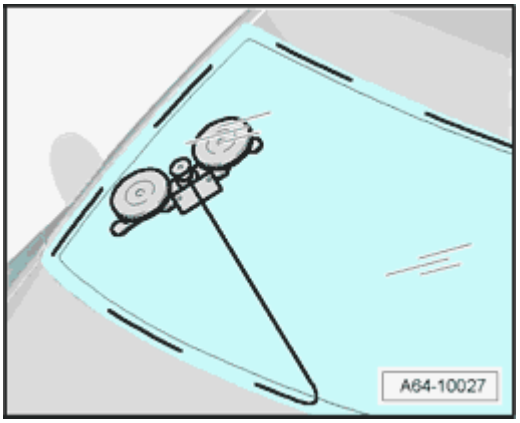


Fig. 332: Moving Spooling Tool And Continue Cutting
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Move spooling tool, as shown in illustration, and continue cutting.

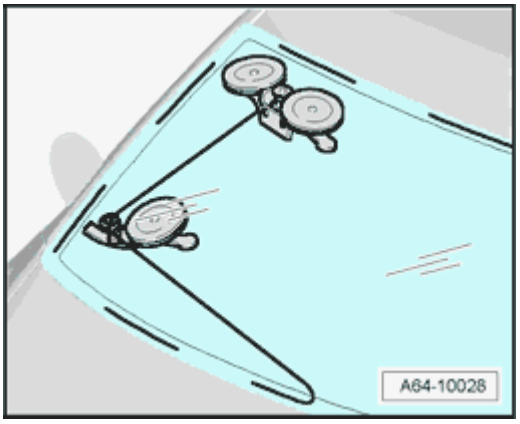


Fig. 333: Moving Spooling Tool And Attaching Relay Pulley
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Move spooling tool, as shown in illustration, and attach relay pulley.
- Route cord as shown.
- Cut window free until cutting cord is no longer fed through idler pulley.

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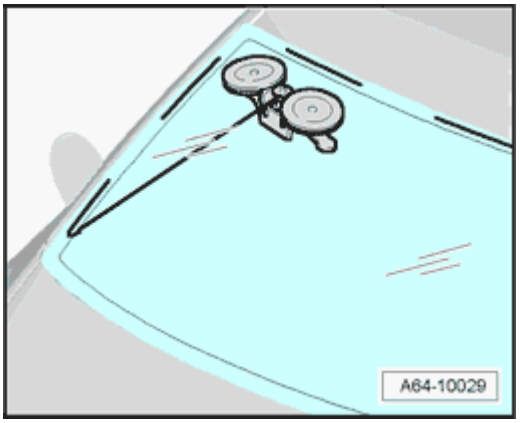


Fig. 334: Removing Relay Pulley And Continue To Cut Adhesive
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove idler pulley and continue cutting window free.

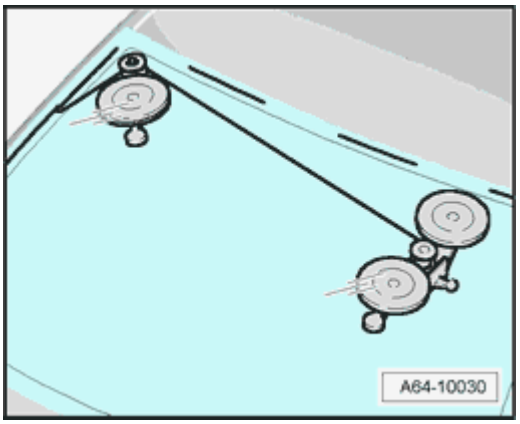


Fig. 335: Moving Spooling Tool And Attaching Relay Pulley In Upper Corner Of Window
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Move spooling tool, as shown in illustration, and attach relay pulley at upper part of window.
- Route cord as shown.
- Cut window free until cutting cord is no longer fed through idler pulley.
- Remove idler pulley and continue cutting window free.
- Repeat these steps in top left and bottom left corners of windshield.
- Completely cut window free.
- Cut through any adhesive beads that were not completely cut through using Electric Cutter V.A.G 1561 A and appropriate cutting blade.
- Remove window with two double suction cups.

Preparing for window installation

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NOTE:

- **If windshield flange was damaged during removal, paint structure should be repaired and if necessary, corrosion repair measures should be taken.**

For undamaged removed windshield

- When reusing an undamaged window, smoothly cut back residual adhesive sealing material on window and flange using Electric Cutter V.A.G 1561 A and Cutting Blade, Bent at Right Angle V.A.G 1561/10 ; do not remove completely.
- Residual material acts as a base for the new adhesive sealing material.

CAUTION:

- **Keep adhesive surface free of dirt and grease.**
- **Only cut back adhesive surface shortly before installation.**
- **Do not prime or use a cleaning solution on the adhesive surface.**

With new window

- Clean window in adhesive area with *Cleaning Solution D 009 401 04* and prime with *Glass/Paint Primer D 009 200 02* .

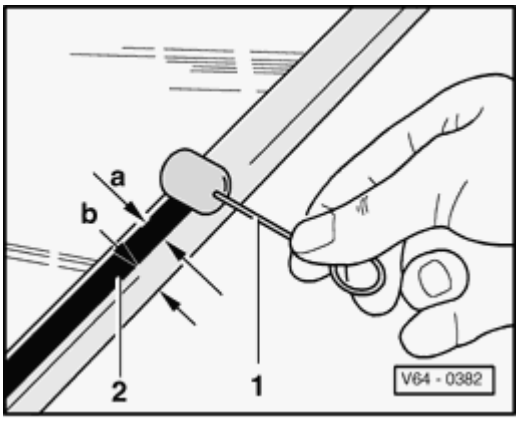


Fig. 336: Applying Primer
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Applying primer

- Apply primer - **2** - along circumference evenly and in one motion using applicator - **1** -.
- Begin applying with saturated felt. Drying time approx. 10 minutes

- Primer width dimension: Dimension a - **a** - = approx. 20 mm

- Apply primer in center of adhesive bead.

CAUTION: Ceramic application on window is not primer! It must be primed before the application of adhesive sealing material!

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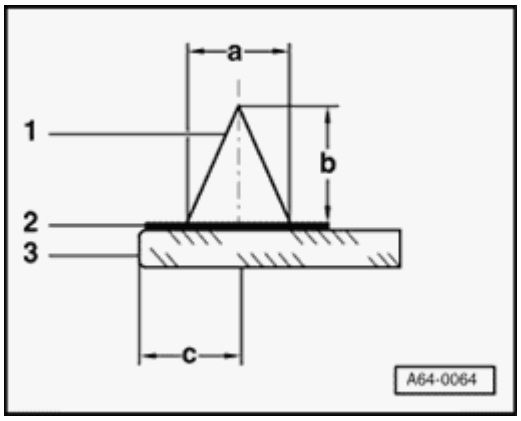


Fig. 337: Dimensions For Adhesive Application
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Dimensions for adhesive application

1. Adhesive sealing material
2. Primer
3. Window

- Bead width - **a** - = 8 ± 2 mm.
- Bead height - **b** - = 12 + 3 mm.

Windshield, installing

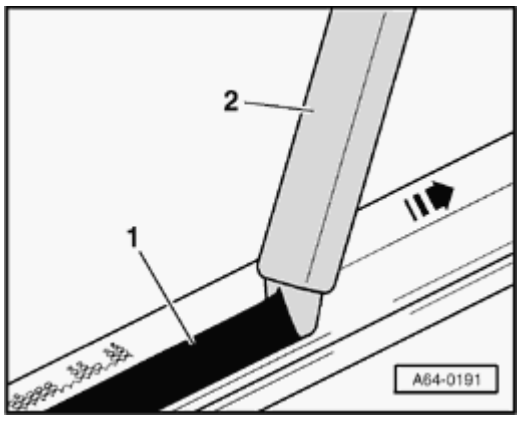


Fig. 338: Positioning Complete Surface Of Nozzle Onto Window
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- After preparatory work has been performed, apply the adhesive.
- Position complete surface of nozzle - **2** - onto window.
- **- Arrow** - indicates direction of application

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NOTE:

- **Cross-section thickness of adhesive bead - 1 - is determined by dimension of opening in nozzle tip and rate of application.**

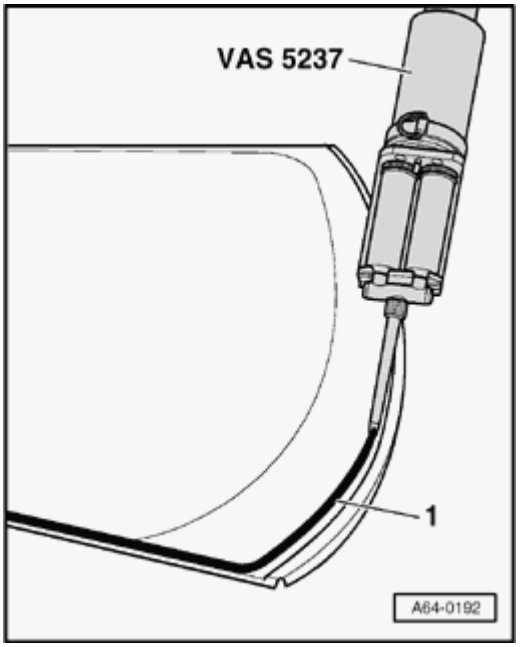


Fig. 339: Applying Adhesive Sealing Material All Around
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Apply adhesive sealing material all around, as shown in illustration.

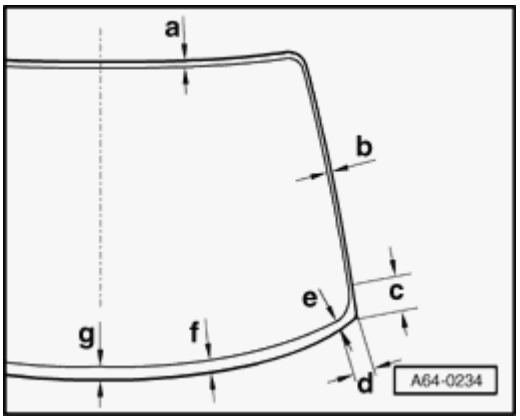


Fig. 340: Varying Spacing Dimensions To Window Edge
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Note varying spacing dimensions to window edge:

CAUTION: Maintain specified distances of adhesive bead to window edges, otherwise there may be leaks.

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- In the lower corners, adhesive bead must be applied in even curves at 12 mm distance to side window edge and 25 mm to lower window edge.
- On the lower window edge, the adhesive bead must increase from dimension - **a** - = 25 mm over dimension - **f** - = 30 mm to dimension - **g** - = 36 mm.

- Dimension - **a** - = 16 mm.
- Dimension - **b** - = 12 mm.
- Dimension - **c** - = 92 mm.
- Dimension - **d** - = 63 mm

- Dimension - **e** - = 25 mm
- Dimension - **f** - = 30 mm.
- Dimension - **g** - = 36 mm.

- Using two suction lifters, install windshield in windshield opening.

CAUTION: Window must be installed within 15 minutes, otherwise bonding properties of adhesive will be impaired.

- Center window along sides.
- The window must not touch the cover trim retaining clips.
- Slide window up to upper spacer buffer stop.

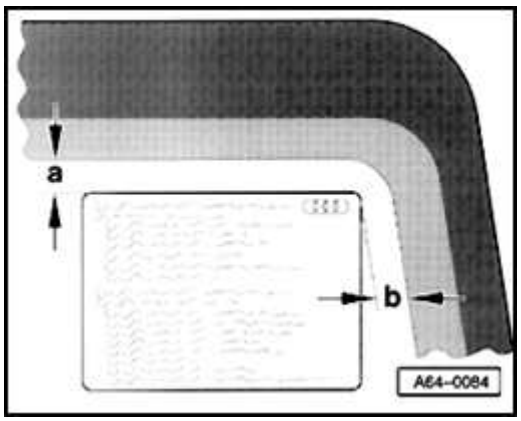


Fig. 341: Affixing Stickers On Windshield In Same Position On New Windshield
Courtesy of VOLKSWAGEN UNITED STATES, INC.

"Caution- Safety information" sticker.

- Attach stickers on windshield (e.g. for airbag) in same position on new windshield.

- Determine dimensions - **a** - and - **b** - from removed window.

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64 GLASS

FLUSH-BONDED WINDOWS

Flush-bonded windows, removing and installing - general information

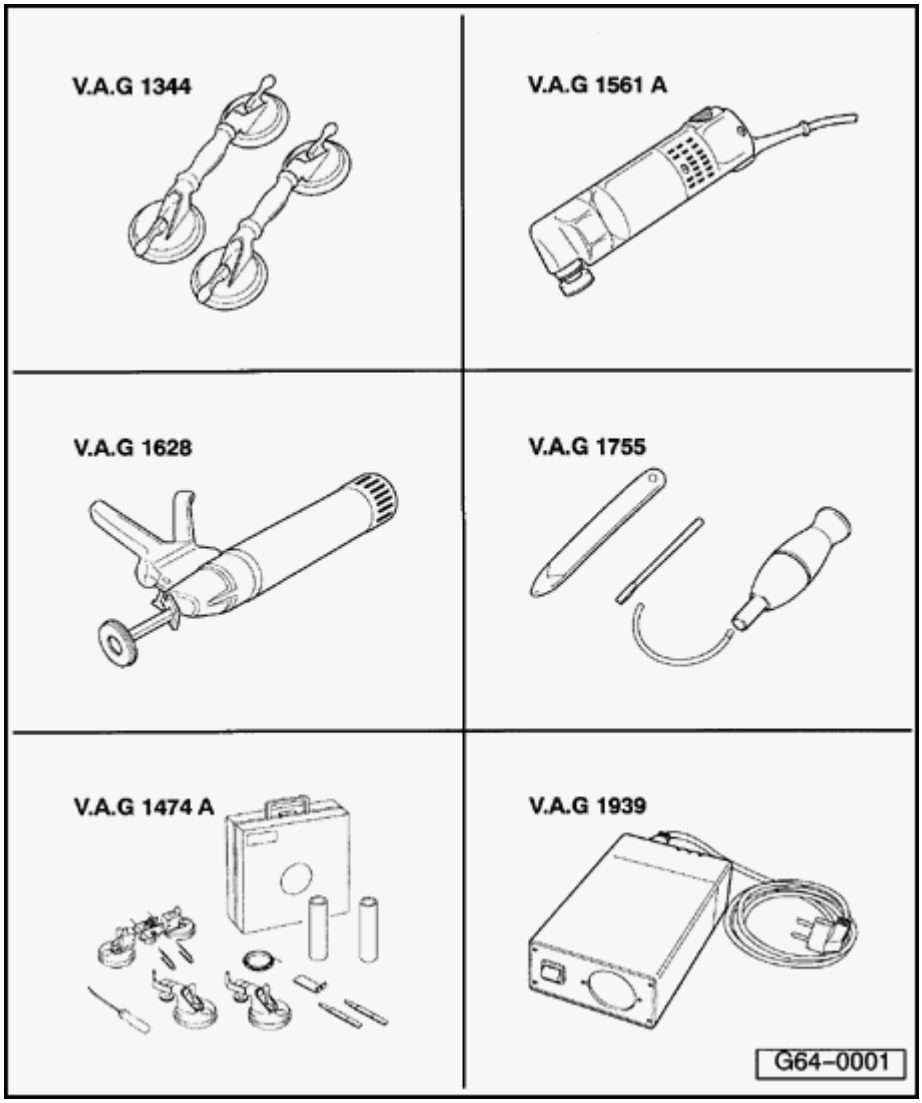


Fig. 219: Identifying Special Tools - Flush-Bonded Windows, Removing And Installing - General Information
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Special tools, testers and auxiliary items required

- Suction lifter V.A.G 1344
- Electric cutter V.A.G 1561 A
- Universal cutting blade V.A.G 1561/11

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- Cartridge gun V.A.G 1628
- Window removing kit V.A.G 1755
- Cutting tools for glass V.A.G 1351
- Cutting tool kit V.A.G 1474 B
- Cartridge heater V.A.G 1939 A
- Cutting cord 357 853 999

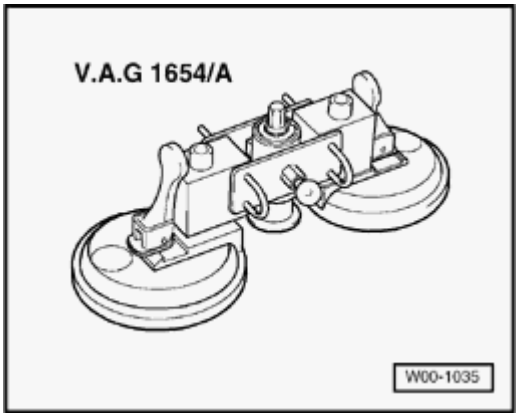


Fig. 220: Spooling Tool V.A.G 1654 A
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Spooling tool V.A.G 1654 A

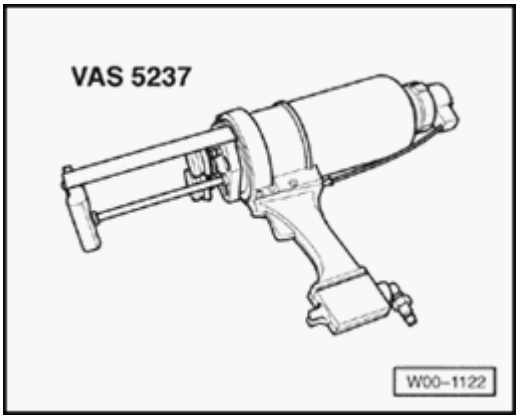


Fig. 221: Double Cartridge Gun VAS 5237
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Double cartridge gun VAS 5237

Servicing windows using special tool

NOTE:

- **Windshields damaged by flying rocks can be repaired using the repair kit**

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for windshields VAS 6092.

- **These damaged areas must not exceed a certain dimension or lie within the drivers field of sight.**
- **For further details on use, refer to Users Manual enclosed with each kit.**

Materials

• 2C- window adhesive	DA 004 600 A2 * See note, 2)
• 1C- window adhesive	DH 009 100 03 * See note, 4)
• Glass primer/paint primer	D 009 200 02
• Cleaning solution	D 009 401 04
• Primer applicator	D 009 500 25
• Adhesive remover	D 002 000 10
• Cutting cord	357 853 999
• Cutting wire	357 845 955

* Observe minimum curing time --> **Minimum curing times!**

* Double cartridge pistol VAS 5237 must be used to process this material

* Heat according to manufacturers instructions using cartridge heater V.A.G 1939 A

* Small cartridge (110 ml) for sealing and/or when a 400 ml double cartridge is not sufficient.

Minimum curing times!

CAUTION:

- **For safety reasons, use only electrically non-conductive 2C-adhesive when installing windshield and rear window using the materials listed below.**
- **Vehicle is only safe for operation after minimum curing time has elapsed and only then may it be used.**

Window	Vehicle	Adhesive sealing material	Curing time in hours
Windshield	With airbag	DA 004 600 A2	3
Rear window		DA 004 600 A2	3
Side window		DH 009 100 03	3

Cleaning when soiled by adhesive sealing material

Adhesive removal solution D 002 000 10 is the recommended cleaning solution. Observe safety precautions

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when processing.

CAUTION: When cleaning from vehicle interior out, the window just installed must not be pressed outward.

Paint surfaces:

- First, clean paint surfaces with a dry cloth. Remove further material using adhesive removal solution D 002 000 10.

Plastic trim:

- Allow adhesive sealing material to harden (about 1 hour) and then peel off.

WINDSHIELD, REMOVING AND INSTALLING

Assembly overview

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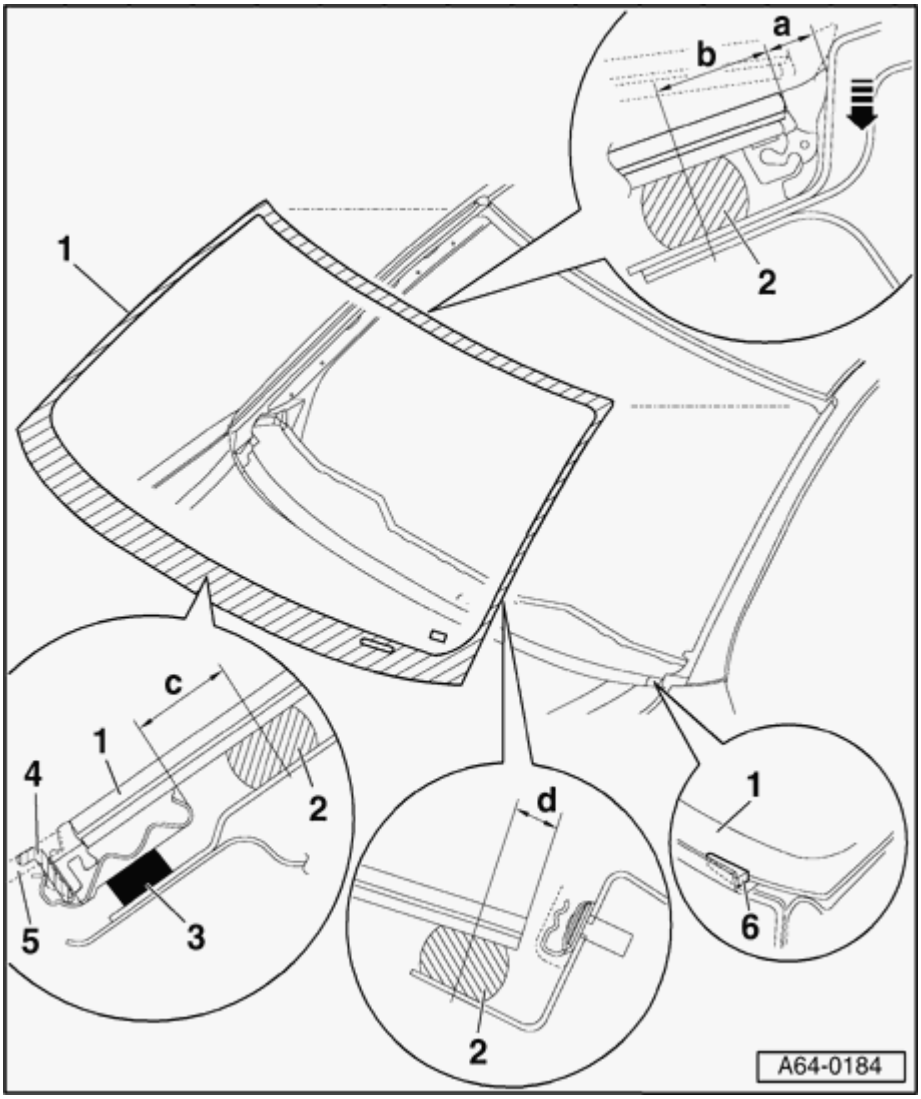


Fig. 222: Windshield, Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Windshield

- Removing --> **Removing**
- Installing --> **Preparing for window installation**
- Distance to roof dimension - **a** - = 6 mm $^{+ 0.5 \text{ mm}}$
- Align distance - **d** - at sides.

NOTE:

- **Stickers on windshield (e.g. for airbag) must be replaced in same position on new windshield.**

2 - Adhesive bead

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- Observe curing times --> **Minimum curing times!**
- Note varying spacing dimensions to window edge.
- Distances of top and side window edge dimension - **b** - and dimension - **d** - = 4 mm
- Distance at lower window edge measured from inner side of clip dimension - **c** - = 10 mm.

- Bead cross section
- Bead width = 8 ± 2 mm
- Bead height = 13.5 +1.5 mm

3 - Spacers

- 5x
- Affix in regular intervals to retaining strip

4 - Protective piping

- Only installed as new part.
- Only remove after installing windshield and before installing plenum chamber cover

5 - Plenum chamber cover

- Pull protective piping - **4** - from retaining strip before installing plenum chamber cover.
- Press into fastening strip only after window adhesive curing time has elapsed.

Removing

Necessary tools and materials --> **Flush-bonded windows, removing and installing - general information**.

CAUTION: Always wear protective glasses and leather gloves when removing a window.

- Remove wiper arms.
  - **92 WINDSHIELD WIPER WASHER SYSTEM**
  - **92 WINDSHIELD WIPER & WASHER SYSTEM** for ELECTRICAL EQUIPMENT, CABRIOLET
- Remove cowl panel trim.
- Pull left and right drip rails out from retaining strips (from bottom upward).
- Remove sun visors on left, center and right. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
- Remove interior rear-view mirror. -->

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- **68 - INTERIOR EQUIPMENT**
- **68 - INTERIOR EQUIPMENT** for BODY INTERIOR - CABRIOLET

- Remove upper trim panels of A-pillars -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

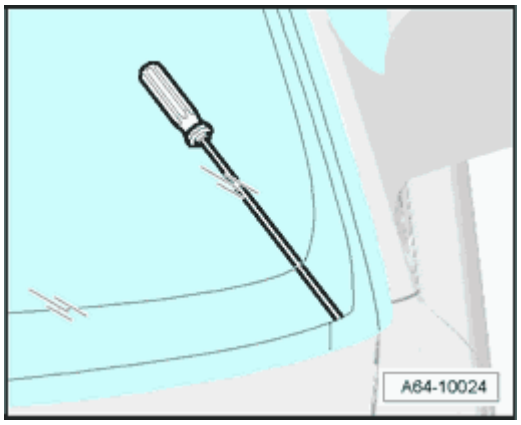


Fig. 223: Piercing Hole In Adhesive Sealing Material From Inside Of Vehicle Using Awl V.A.G 1755 Or Awl V.A.G 1351 At Bottom-Left Of Windshield
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pierce hole in adhesive sealing material from inside of vehicle using awl V.A.G 1755 or awl V.A.G 1351 at bottom-left of windshield.
- Pull cutting cord through adhesive sealing material into inside of vehicle using awl.

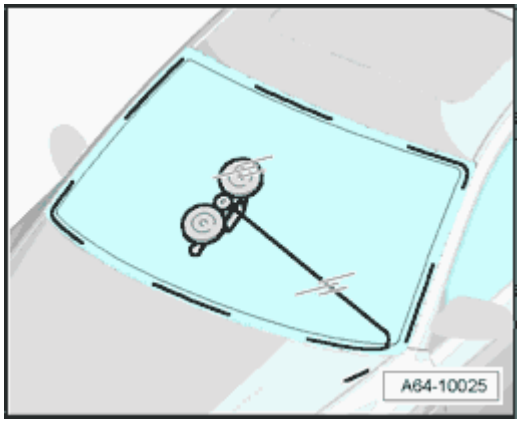


Fig. 224: Laying Cutting Cord Underneath And All Around Inside Of Windshield
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Lay cutting cord underneath and all around inside of windshield.

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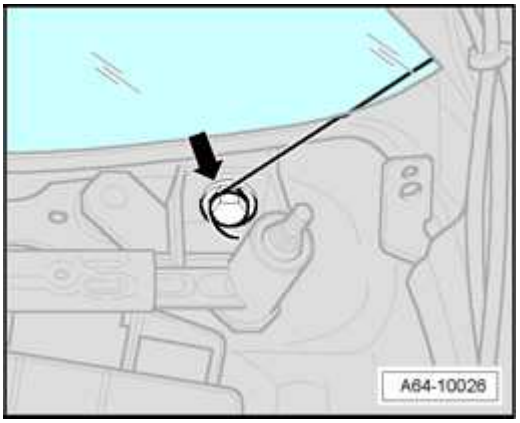


Fig. 225: Securing End Of Cutting Cord At Bolt For Securing Window Wiper Frame
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Secure end of cutting cord at bolt - **arrow** - for securing window wiper frame.
- Insert protective foil V.A.G 1474/13 between windshield and instrument panel.

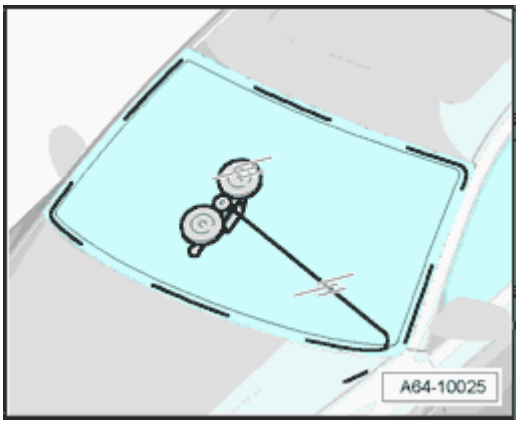
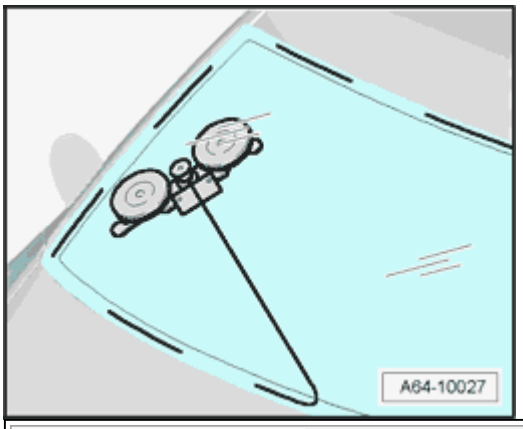


Fig. 226: Laying Cutting Cord Underneath And All Around Inside Of Windshield
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Secure beginning of cutting cord in winding device and cut out first area of adhesive (up to about center of windshield).



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Fig. 227: Moving Spooling Tool And Continue Cutting
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Move spooling tool as shown in diagram and continue cutting.

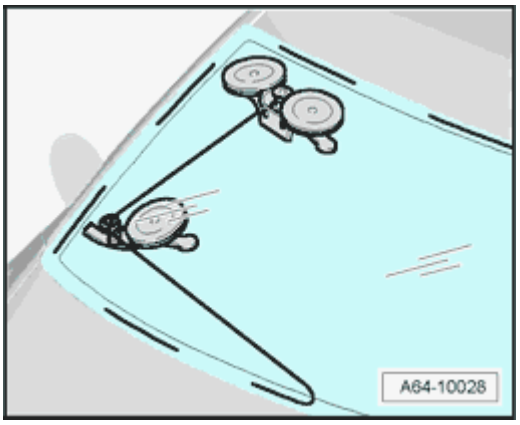


Fig. 228: Moving Spooling Tool And Attaching Relay Pulley
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Move spooling tool as shown in diagram and attach relay pulley.
- Route cutting cord as shown.
- Cut adhesive up to point where cord no longer runs in relay pulley.

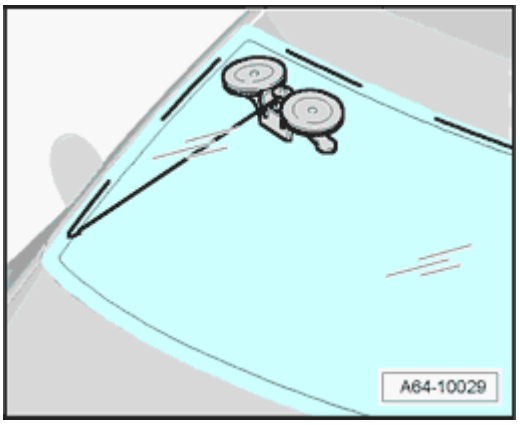


Fig. 229: Removing Relay Pulley And Continue To Cut Adhesive
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove relay pulley and continue to cut adhesive.

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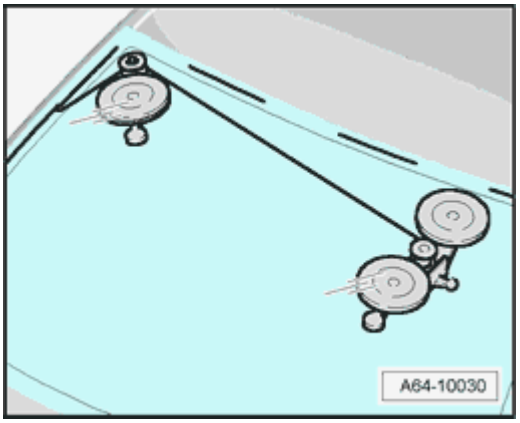


Fig. 230: Moving Spooling Tool And Attaching Relay Pulley In Upper Corner Of Window
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Move spooling tool as shown in diagram and attach relay pulley in upper corner of window.
- Route cutting cord as shown.
- Insert protective foil V.A.G 1474/11 between windshield and molded headliner.
- Cut adhesive up to point where cord no longer runs in relay pulley.
- Remove relay pulley and continue to cut adhesive.
- Repeat these steps in top left and bottom left corners of windshield.
- Cut window completely free.
- Remove window using two double suction cups.

Preparing for window installation

NOTE:

- **If windshield flange was damaged during removal, paint structure should be repaired according to specifications in article, "Vehicle-Paint" and if necessary, corrosion repair measures should be taken according to guidelines in "Surface Technology/Chemical Materials Folder".**

For undamaged removed windshield

- When reusing an undamaged window, cut back smoothly residual adhesive sealing material on window and flange using electric cutter V.A.G 1561A and scraper V.A.G 1561/10; do not remove completely!
- Residual material acts as a base for the new adhesive sealing material.

CAUTION:

- **Keep adhesive surface free of dirt and grease.**
- **Only cut back adhesive surface shortly before installation.**
- **Do not prime or use a cleaning solution on the adhesive surface.**

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New window, installing

- Clean windshield in adhering area using D 009 401 04 and prime using D 009 200 02 glass/paint primer.

Applying primer

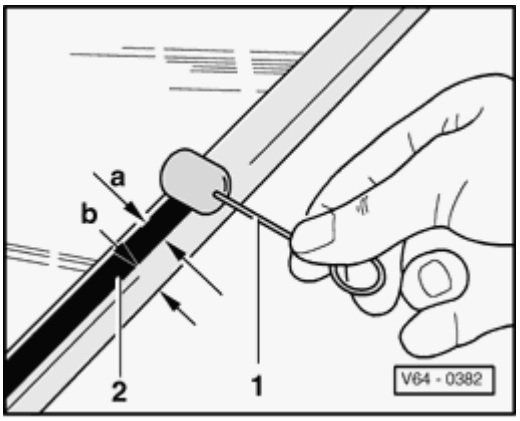


Fig. 231: Applying Primer Evenly In One Pass Using Applicator
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Apply primer - **2** - along circumference evenly and in one motion using applicator - **1** -.
- Begin application with a fully saturated felt. Air drying time approx. 10 minutes.

- Primer dimensions: Dimension - **a** - = approx. 20 mm

- Apply primer in center of adhesive bead.

CAUTION: Ceramic application on window is not primer! It must be primed before the application of adhesive sealing material!

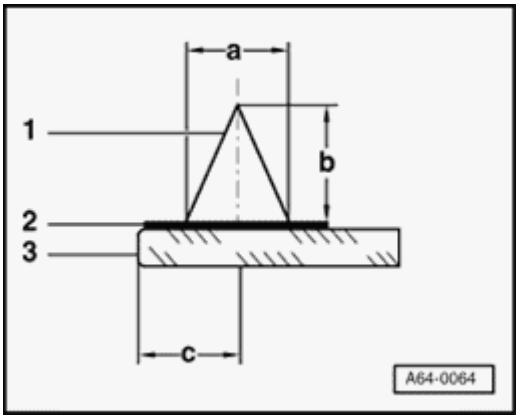


Fig. 232: Dimensions For Application Of Adhesive
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Dimensions for application of adhesive

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1 - Adhesive bead

2 - Primer

3 - Washer

- Bead width - **a** - = 8 ± 2 mm
- Bead height - **b** - = 12 + 3 mm
- Dimension - **c** - = note varying spacing dimensions to window edge --> **Windshield, removing and installing**

Windshield, installing

- After preparatory work has been performed, apply the adhesive.

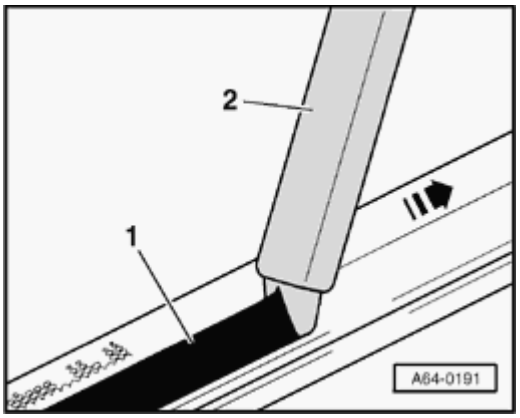


Fig. 233: Positioning Complete Surface Of Nozzle Onto Window
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Position complete surface of nozzle - **2** - onto window.
- **- Arrow -** indicates direction of application

NOTE:

- **Cross-section thickness of adhesive bead - 1 - is determined by dimension of opening in nozzle tip and rate of application.**

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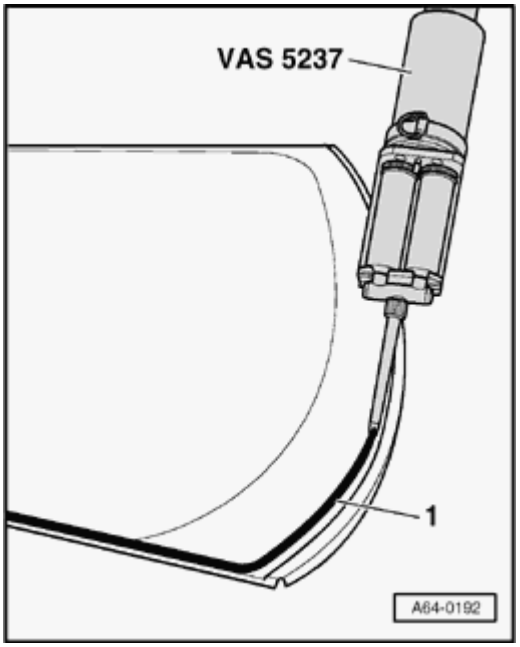


Fig. 234: Applying Adhesive Sealing Material All Around
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Apply adhesive sealing material all around, as shown in illustration.
- Note varying spacing dimensions to window edge --> **Windshield, removing and installing**
- Using two suction lifters, install windshield in windshield opening.

CAUTION: Window must be installed within 15 minutes, otherwise bonding properties of adhesive will be impaired.

- Align windshield at sides.
- Spacing between edge of window and roof frame must be 6 mm + 0.5 mm.

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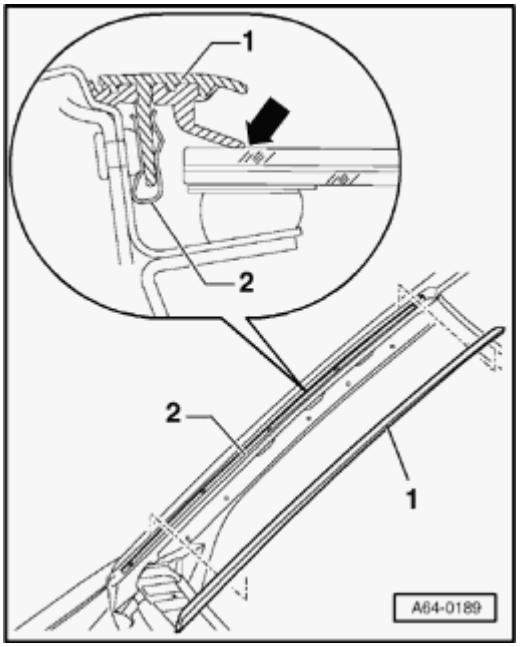


Fig. 235: Pressing Drip Rail Into Retaining Clips Until It Stops Only After Curing Time Has Elapsed
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Press drip rail - **1** - into retaining clips - **2** - until it stops only after curing time has elapsed.
- When pressing in drip rail, make sure sealing lip - **arrow** - lies flat against windshield and does not slip behind edge of windshield.

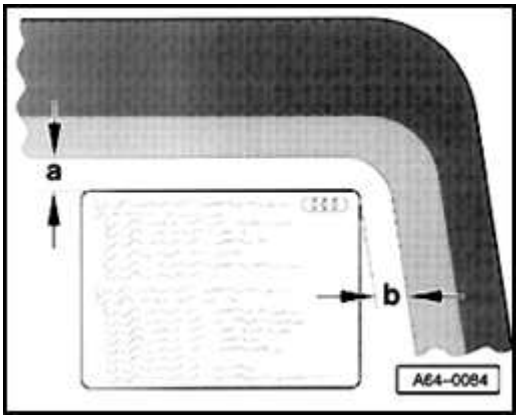


Fig. 236: Affixing Stickers On Windshield In Same Position On New Windshield
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Affix stickers on windshield (e.g. for airbag) in same position on new windshield. "Caution- Safety information" sticker

- Dimension - **a** - = 25 mm
- Dimension - **b** - = 10 mm

SIDE WINDOW (SEDAN), REMOVING AND INSTALLING

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Side window with molding - assembly overview

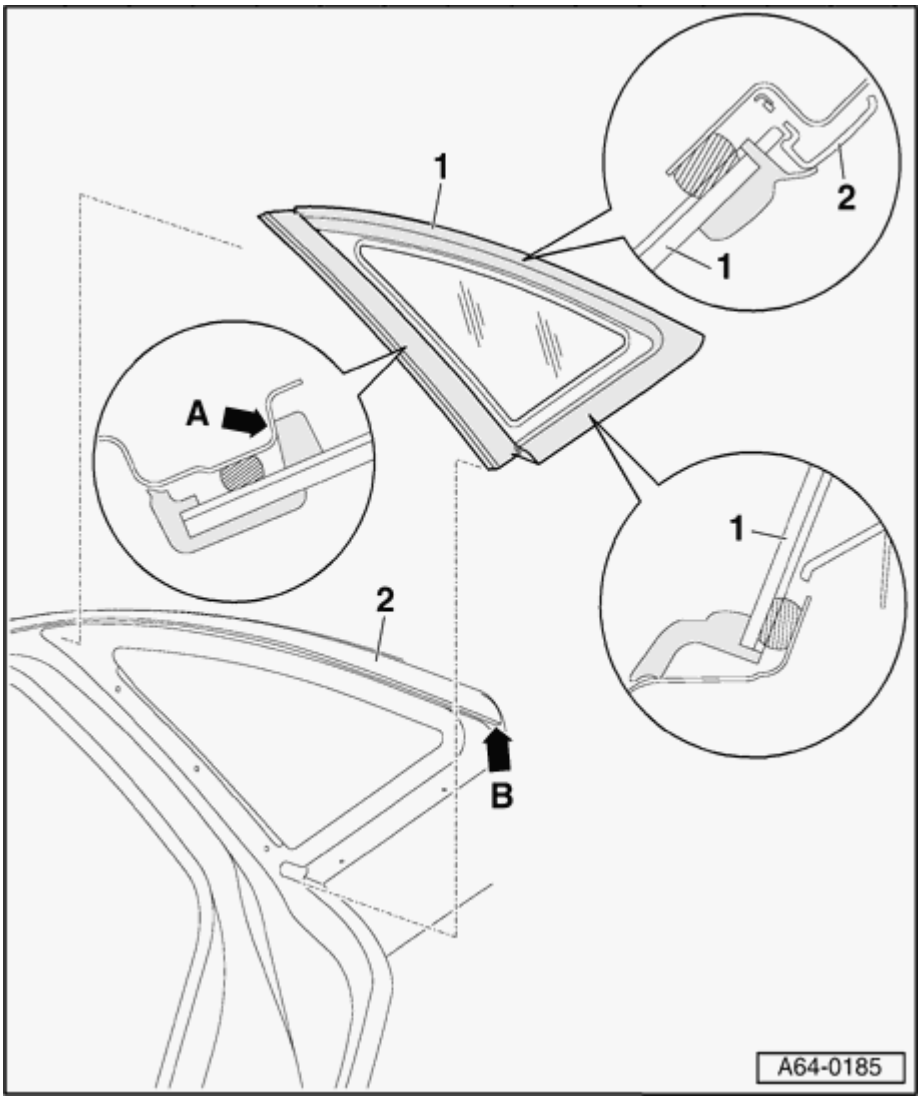


Fig. 237: Side Window With Molding - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Side window

- Removal --> **Undamaged side window, removing**.
- Note varying spacing dimensions of adhesive bead to window edge.
- When inserting window, make sure that retaining tabs on molding at D-pillar, or at joint of D-pillar to side panel, are slide behind roof trim molding.

2 - Roof trim molding

Side window with gloss package - assembly overview

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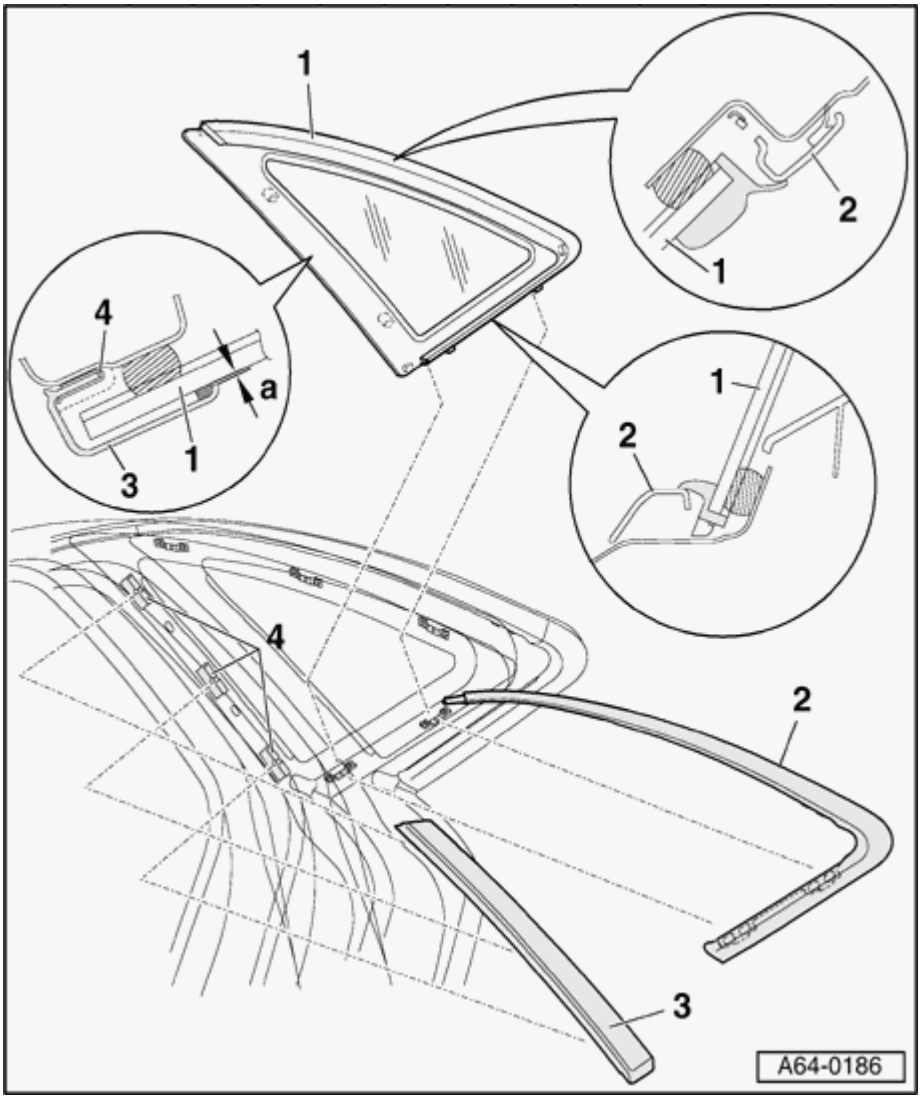


Fig. 238: Side Window With Gloss Package - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Side window

- Removal --> **Undamaged side window, removing**.
- Note varying spacing dimensions of adhesive bead to window edge.
- When installing, set window first on side panel at bottom.
- Press in window up to lower stop - **arrow** - and into window cut-out.
- After curing time has elapsed, install roof trim molding and trim to D-pillar

2 - Roof trim molding D-pillar

- C-pillar trim removed.

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- To remove, pry carefully out of retaining clips beginning first at bottom on C-pillar.
- Then pry out of retaining clips at D-pillar and pull downward out of roof trim molding.

3 - C- pillar trim

- To remove, pull trim panel out of clips - **4** - toward rear.
- When installing, insert trim panel first at top on roof trim molding and press completely into clips - **4** -.
- Dimension - **a** - = 0.5 ± 0.1 mm

4 - Retaining clips

- Riveted to C- pillar.

Undamaged side window, removing

Side window with molding

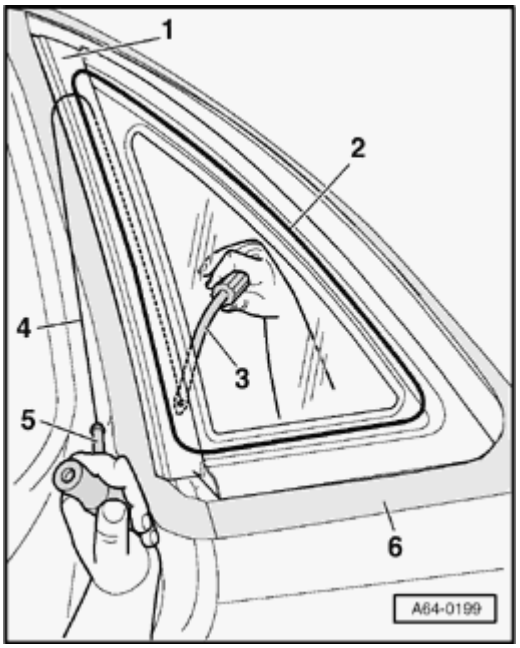


Fig. 239: Undamaged Side Window, Removing
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Apply fabric reinforced adhesive tape - **6** - to area of window edges along circumference to protect paint from damage.
- Using awl from V.A.G 1755, pierce through adhesive bead on window glass - **1** - at top in direction of B-pillar from inside vehicle toward outside.
- Pull cutting cord - **4** - through toward inside and secure it in grab handle - **3** -.
- Secure the other end in pull handle - **5** -.

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- Second technician pierces adhesive bead at bottom using grab handle as shown.
- Pull cutting cord on the outside through adhesive bead - **2** - downward.

NOTE:

- **At the corners, move cutting cord in sawing motions to cut through the adhesive more easily.**

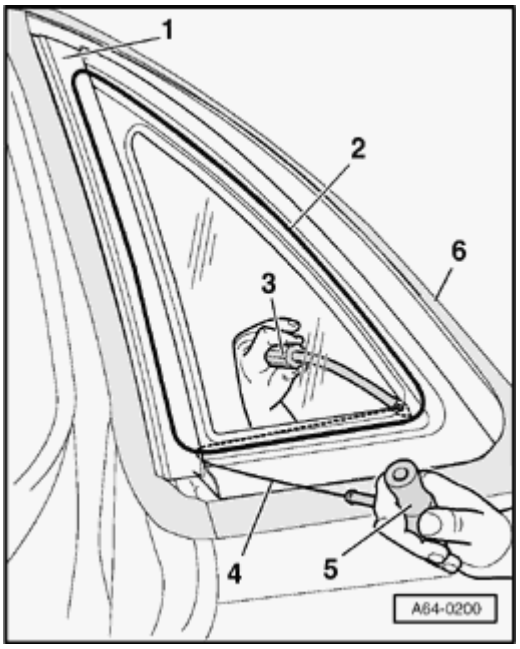


Fig. 240: Pulling Cutting Cord Toward Inside And Inserting Grab Handle Into Adhesive Bead At D-Pillar At Rear
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull cutting cord - **4** - toward inside and insert grab handle - **3** - into adhesive bead - **2** - at D-pillar at rear.
- Pull cutting cord - **4** - toward rear through adhesive bead using pull handle.

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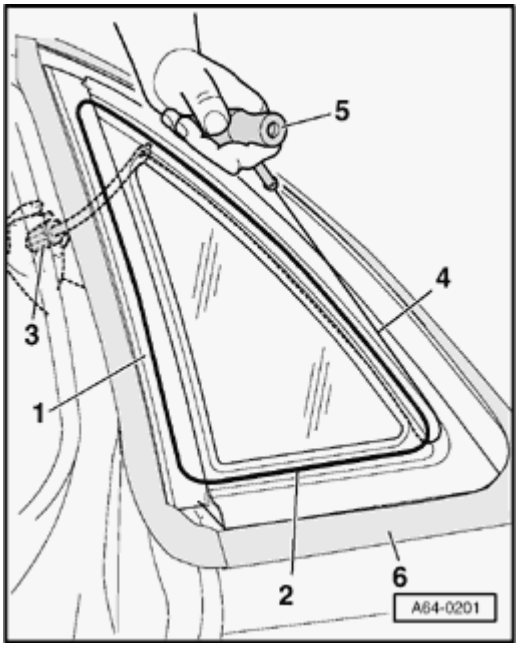


Fig. 241: Pulling Cutting Cord Toward Inside And Inserting Grab Handle Into Adhesive Bead At D-Pillar At Top
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull cutting cord - **4** - toward inside and insert grab handle - **3** - into adhesive bead - **2** - at D-pillar at top.
- Pull cutting cord - **4** - upward through adhesive bead using pull handle.
- Remove window from cut-out.

Side window with gloss package

- Remove C-/D-pillar trim -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

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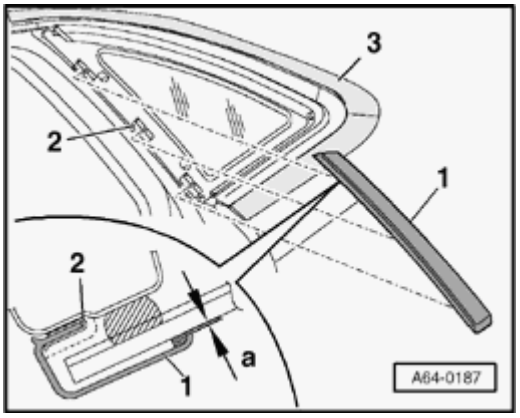


Fig. 242: Removing/Installing Roof Trim Molding And Slide Trim

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Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Apply adhesive tape - **3** - to C-/D-pillar trim as well as side panel to protect paint from damage.
- Pull off trim molding - **1** - from retaining clips - **2** - toward front.

CAUTION: Roof trim molding must not be bent.

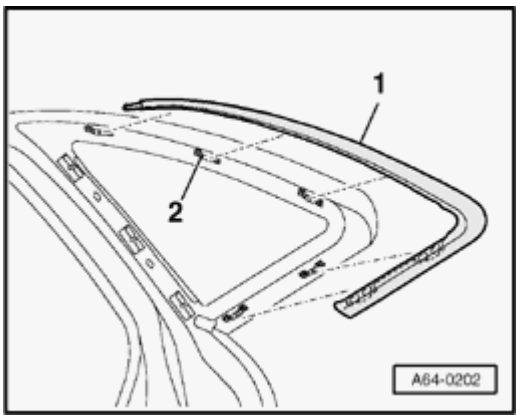


Fig. 243: Removing/Installing Roof Trim Molding
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Carefully pull roof trim molding - **1** - from below, beginning at C-pillar, out of retaining clips using a plastic wedge.
- Pry out roof trim molding at D-pillar in the same manner out of retaining clips and pull off downward.
- Insert cutting cord around the side window as depicted in the illustration.

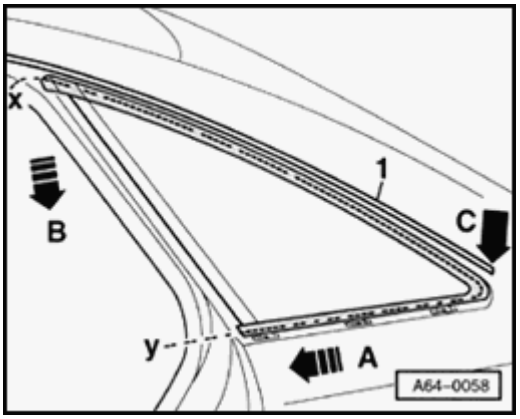


Fig. 244: Securing Ends X And Y In Two Pull Grips From Special Tool V.A.G 1351
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Secure ends X and Y in two pull grips from special tool V.A.G 1351.
- Pull cutting cord in - **direction of arrow A** - using light sawing motions and cut through lower adhesive sealing material at side panel and at roof frame.

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- Then pull cutting cord through in - **direction of arrow B** - downward through adhesive sealing material.
- Remove window from window opening.

Preparing for window installation

NOTE:

- **If windshield flange was damaged during removal, paint structure should be repaired according to specifications in article, "Vehicle-Paint" and if necessary, corrosion repair measures should be taken according to guidelines in "Surface Technology/Chemical Materials Folder".**

For undamaged removed windshield

- When reusing an undamaged window, cut remaining adhesive sealing material on window and flange using a carpet knife so that it is even, but do not remove completely!
- Residual material acts as a base for the new adhesive sealing material.

CAUTION:

- **Keep adhesive surface free of dirt and grease.**
- **Only cut back adhesive surface shortly before installation.**
- **Do not prime or use a cleaning solution on the adhesive surface.**

- Apply adhesive onto residual adhesive bead

- Bead width = 8 ± 2 mm
- Bead height = 13.5 ± 1.5 mm

NOTE:

- **Adhesive sealing material DH 009 100 03 (small cartridge) is recommended when bonding a single window; D 004 300 05 (2K- adhesive) is recommended when bonding more than one window.**

New window, installing

- Clean windshield in adhering area using D 009 401 04 and prime using D 009 200 02 glass/paint primer.
- Ensure an air drying time of 10 minutes for primer.
- Apply adhesive

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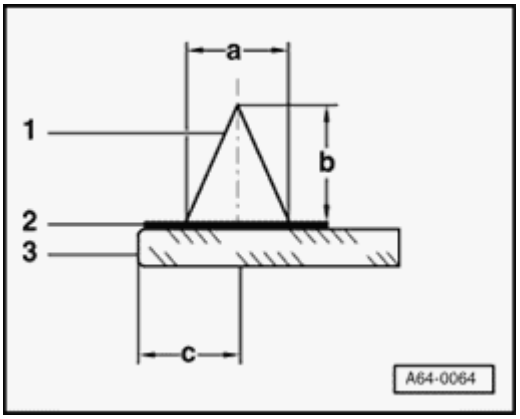


Fig. 245: Dimensions For Application Of Adhesive
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Dimensions for application of adhesive

1 - Adhesive bead

2 - Primer

3 - Washer

- Bead width - **a** - = 8 ± 2 mm
- Bead height = 13.5 ± 1.5 mm
- Dimension - **c** - = note varying spacing dimensions to window edge

Side window, installing

Vehicles with molded side window

- Place window onto lower D-pillar and press into window opening.
- Side window molding must engage behind roof trim molding --> **Side window (Sedan), removing and installing**
- Secure window in opening using adhesive tape.
- Observe curing time.

Vehicles with gloss package

- Press roof trim molding into retaining clips at D-pillar.

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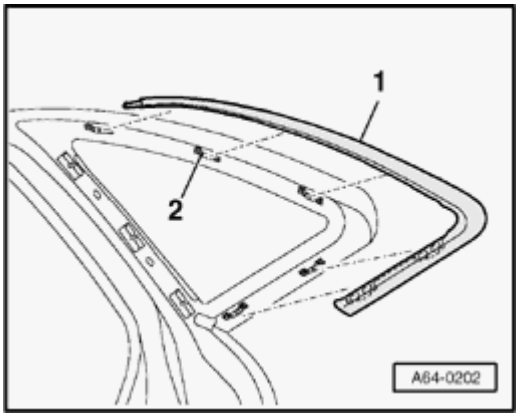


Fig. 246: Removing/Installing Roof Trim Molding
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Press trim - **1** - into retaining clips - **2** - at D-pillar and lower side panel.
- Position window at lower side panel and press into opening.
- Secure window in opening using adhesive tape.

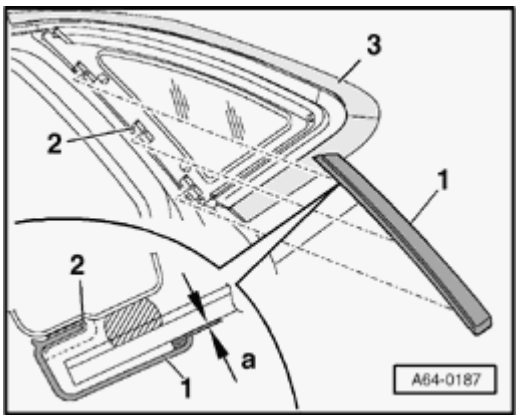


Fig. 247: Removing/Installing Roof Trim Molding And Slide Trim
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Position upper B-pillar trim at roof trim molding and slide trim - **1** - into side retaining clips.
- Observe curing time.

SIDE WINDOW (AVANT), REMOVING AND INSTALLING

Side window (Avant), removing and installing - assembly overview

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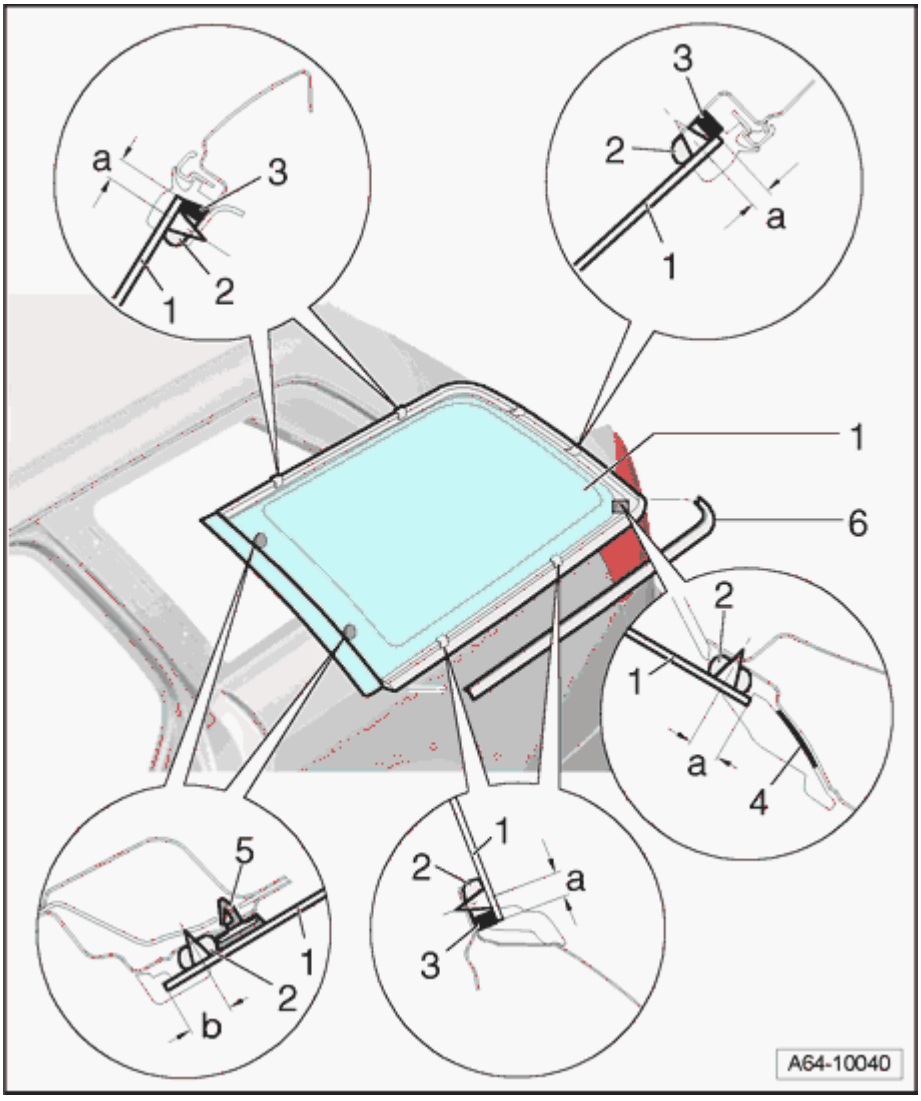


Fig. 248: Side Window (Avant), Removing And Installing - Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Side window

2 - Adhesive bead

- Note varying spacing dimensions to window edge.
- Dimension - **a** - = 8 mm behind window molding
- Dimension - **b** - = 25 mm
- Bead cross section

- Bead width = 8 mm ± 2 mm
- Bead height = 13.5 ± 1.5 mm

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3 - Spacers

- Height 8 mm

4 - Double sided adhesive

- D 004 400

5 - Securing pin

- 2x

6 - Trim for side panel

- When installing, first insert into roof trim molding at bottom, then press at sides into retaining clips on side panel.

Undamaged side window, removing

CAUTION: Always wear protective glasses and leather gloves when removing a window.

Remove the following trim pieces:

- Side luggage compartment trim. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
- D-pillar trim. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
- Trim above rear side window. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
- C-pillar trim. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET

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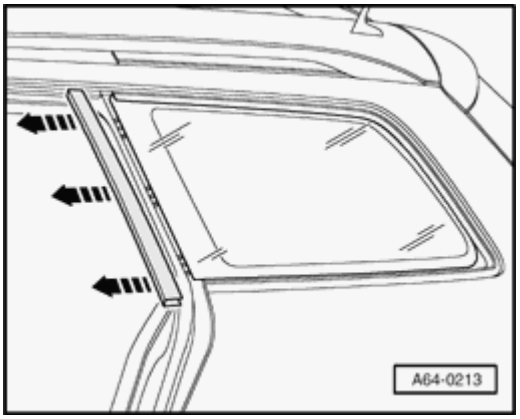


Fig. 249: Removing C-Pillar Trim From Rear Side Window Toward Front
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove C-pillar trim from rear side window toward front - **arrows** -.

Side window with gloss package

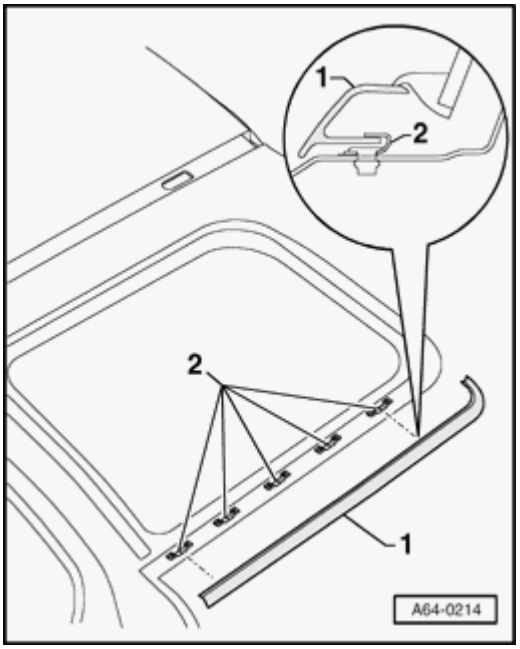


Fig. 250: Identifying Lower Trim Molding & Retaining Springs
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Beginning at C-pillar, pull lower trim molding - **1** - from retaining springs - **2** -.
- Disengage lower trim molding from roof trim molding.

CAUTION:

- **To prevent damage to paint when removing and installing trim molding, cover area below side window and on side panel using adhesive tape.**

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- **Also, a slightly bent roof trim molding is damaged and must be replaced.**

All vehicles:

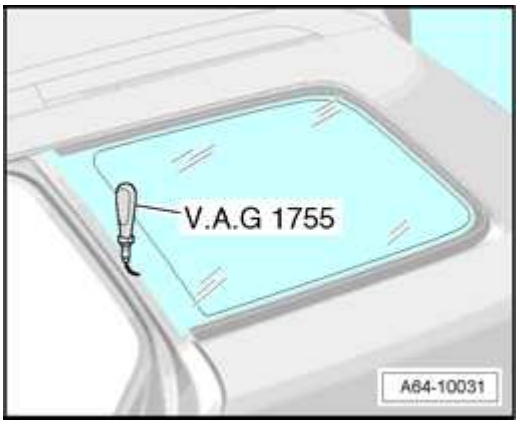


Fig. 251: Piercing Through Adhesive Sealing Material Using Guide Needle With Handle From V.A.G 1755 Window Removing Kit
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pierce through adhesive sealing material using a guide needle with handle from V.A.G 1755 window removing kit.
- Remove handle and thread cutting cord through eye of the guide needle.

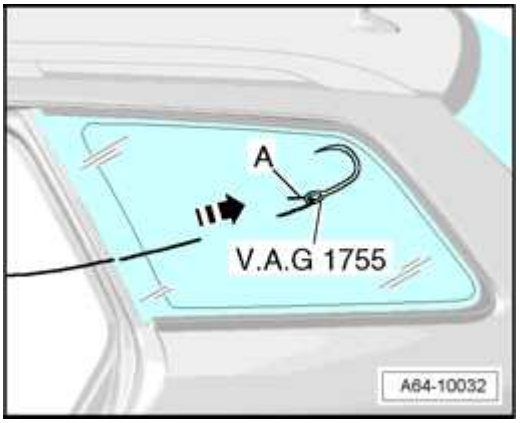


Fig. 252: Pulling Cutting Cord End Inward (Use Pliers And Protective Gloves) To Opposite Window Side With Guide Needle From V.A.G 1755 Window Removing Kit
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull cutting cord end - **A** - inward (use pliers and protective gloves) to opposite window side with guide needle from V.A.G 1755 window removing kit.

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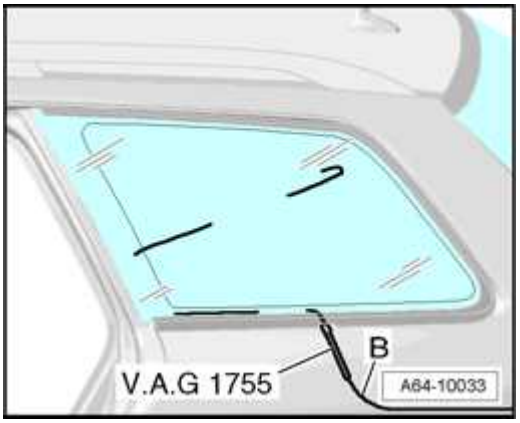


Fig. 253: Pulling Cutting Cord With Small Tube From V.A.G 1755 Window Removing Kit Under Polyurethane Molding Of Side Window
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull cutting cord - **B** - with small tube from V.A.G 1755 window removing kit under polyurethane molding of side window.

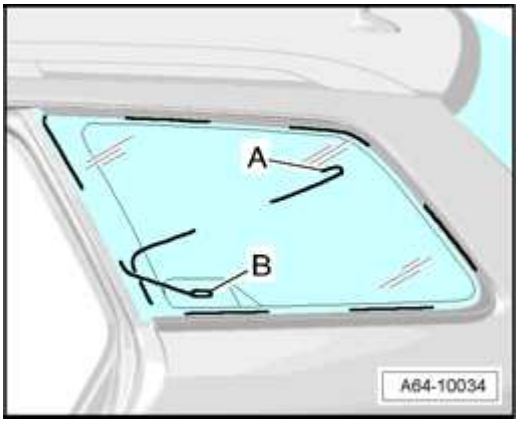


Fig. 254: Inserting Cutting Cord Completely Around Window
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Insert cutting cord completely around window.
- Pierce through adhesive sealing material using a guide needle with handle from V.A.G 1755 window removing kit.
- Remove handle and thread end of cutting cord - **B** - through eye of the guide needle.
- Pull through cutting cord end - **B** - with guide needle inward (use pliers and protective gloves).

- Secure cutting cord end - **B** - to belt guide console.

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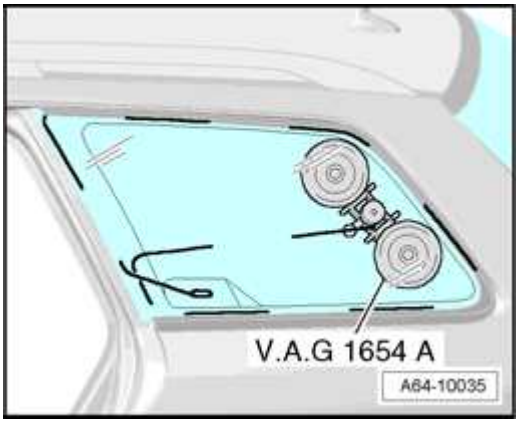


Fig. 255: Attaching Spooling Tool V.A.G 1654 Together With Cutting Cord
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Attach spooling tool V.A.G 1654 as shown together with cutting cord.

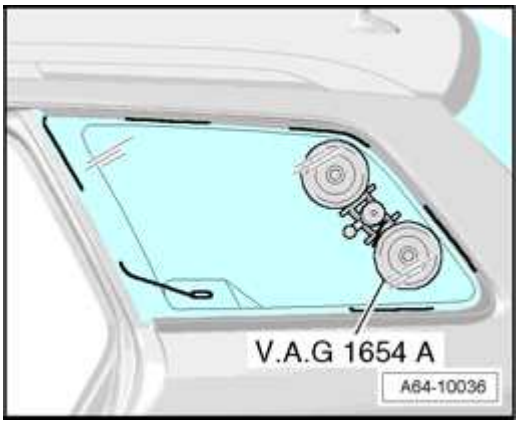


Fig. 256: Cutting First Area At C-Pillar And Window Bottom
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Cut first area at C-pillar and window bottom.

NOTE:

- **Press cutting cord in direction of chassis during cutting procedure.**

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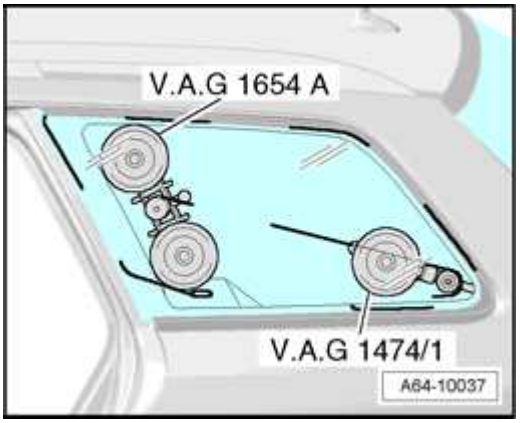


Fig. 257: Positioning V.A.G 1474/1 Roller
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Position V.A.G 1474/1 roller as depicted in the illustration.
- Move spooling tool V.A.G 1654 and continue cutting.

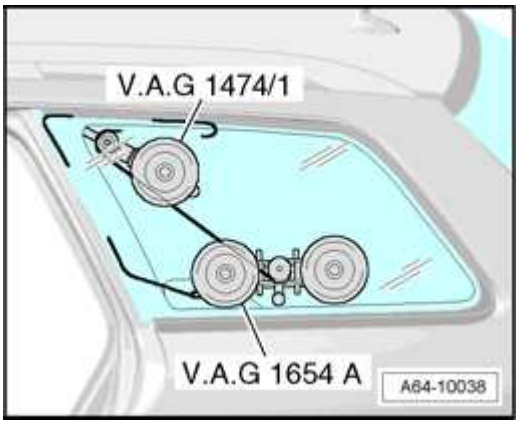


Fig. 258: Positioning V.A.G 1474/1 Roller, Moving Spooling Tool V.A.G 1654 & Continue Cutting (1 Of 2)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Position V.A.G 1474/1 roller as depicted in the illustration.
- Move spooling tool V.A.G 1654 and continue cutting.

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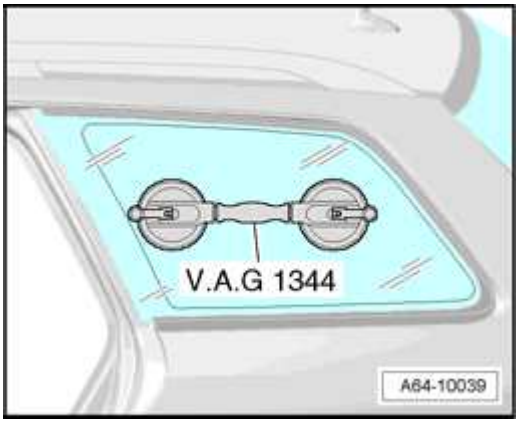


Fig. 259: Pressing Side Window Into Window Opening Using V.A.G 1344 Double Suction Cups
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove side window using V.A.G 1344 double suction cups.

Preparing for window installation

NOTE:

- **If windshield flange was damaged during removal, paint structure should be repaired according to specifications in article, "Vehicle-Paint" and if necessary, corrosion repair measures should be taken according to guidelines in "Surface Technology/Chemical Materials Folder".**

For undamaged removed windshield

- When reusing an undamaged window, cut remaining adhesive sealing material on window and flange using a carpet knife so that it is even, but do not remove completely!
- Residual material acts as a base for the new adhesive sealing material.

CAUTION:

- **Keep adhesive surface free of dirt and grease.**
- **Only cut back adhesive surface shortly before installation.**
- **Do not prime or use a cleaning solution on the adhesive surface.**

- Apply adhesive onto residual adhesive bead

- Bead width = 8 ± 2 mm
- Bead height = 13.5 ± 1.5 mm

NOTE:

- **Adhesive sealing material DH 009 100 03 (small cartridge) is recommended when bonding a single window; D 004 300 05 (2K- adhesive) is recommended when bonding more than one window.**

New window, installing

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- Clean windshield in adhering area using D 009 401 04 and prime using D 009 200 02 glass/paint primer.
- Ensure an air drying time of 10 minutes for primer.
- Apply adhesive

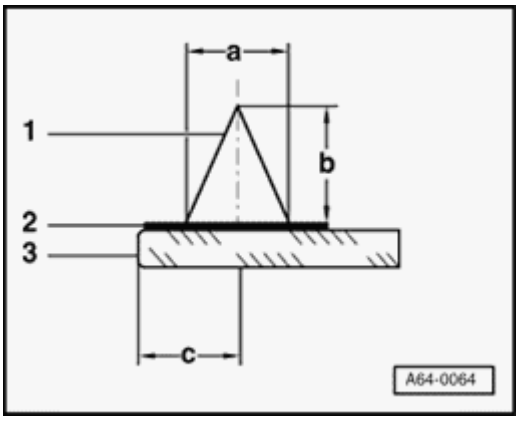


Fig. 260: Dimensions For Application Of Adhesive
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Dimensions for application of adhesive

1 - Adhesive bead

2 - Primer

3 - Washer

- Bead width - **a** - = 8 ± 2 mm
- Bead height = 13.5 ± 1.5 mm
- Dimension - **c** - = note varying spacing dimensions to window edge --> **Side window (Avant), removing and installing - assembly overview**

Side window, installing

- Adhere spacer onto side window.
- Apply double sided adhesive tape D 004 400 on window gasket, rear.

Vehicles with gloss package

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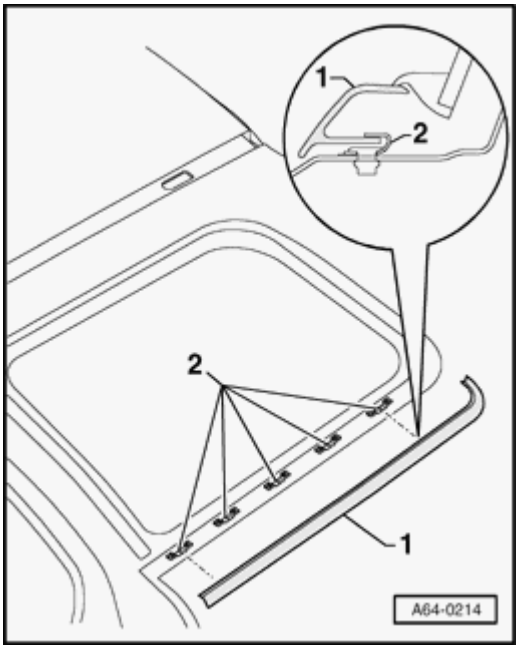


Fig. 261: Identifying Lower Trim Molding & Retaining Springs
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Install lower trim molding - **1** - into retaining clips - **2** -.

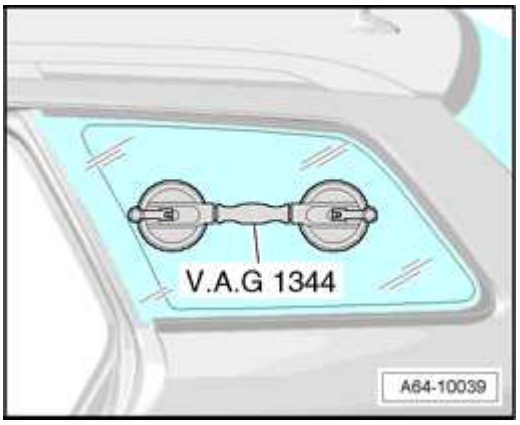


Fig. 262: Pressing Side Window Into Window Opening Using V.A.G 1344 Double Suction Cups
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Press side window into window opening using V.A.G 1344 double suction cups and align it according to window opening.
- Secure window in opening using adhesive tape.
- Observe curing time.

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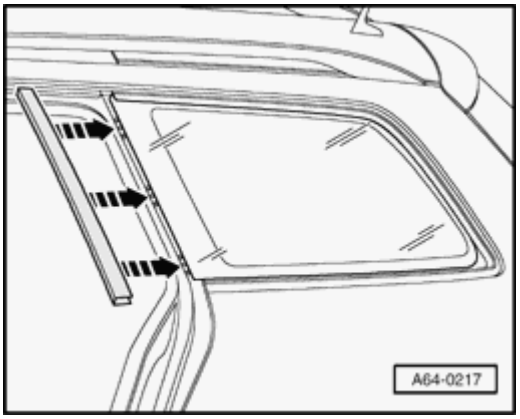


Fig. 263: Pressing It Into Retaining Clips At C-Pillar
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- On vehicles with trim attached, press it into retaining clips at C-pillar - **arrows** -.

REAR WINDOW (SEDAN), REMOVING AND INSTALLING

Assembly overview

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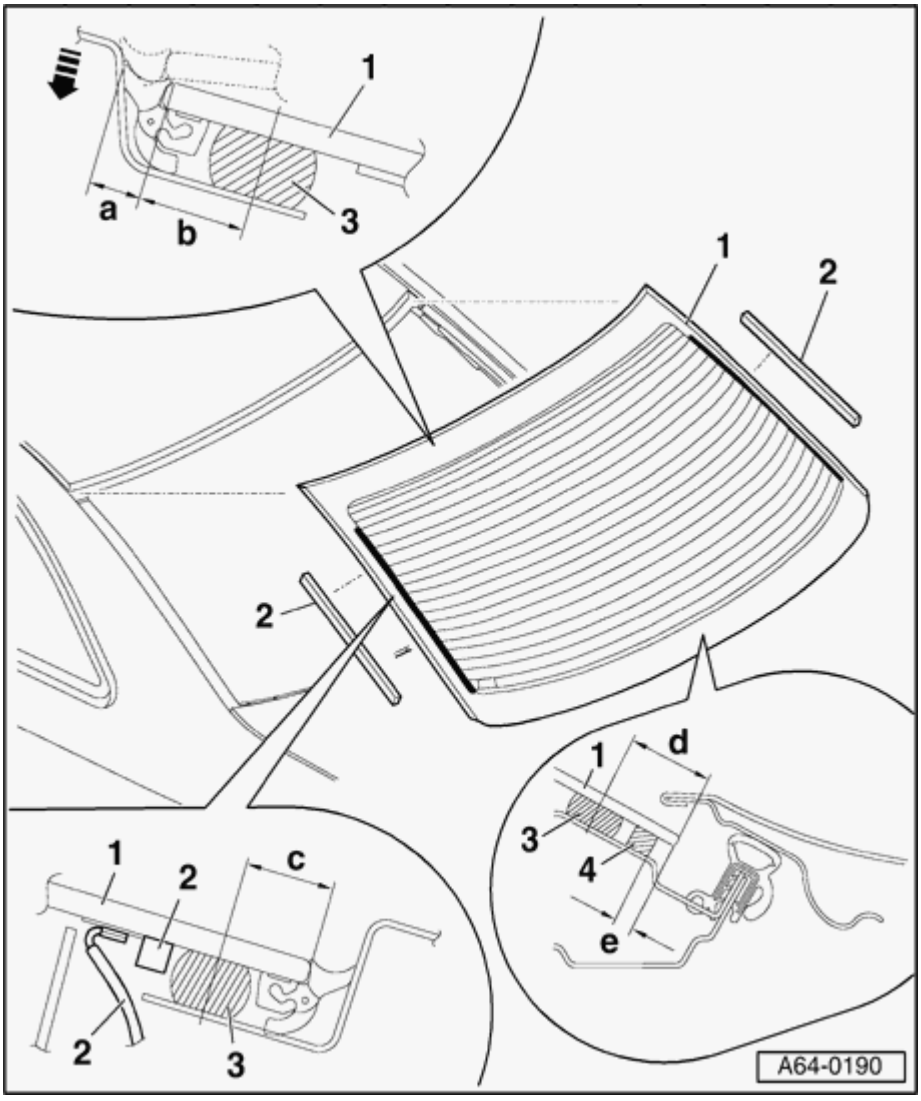


Fig. 264: Rear Window (Sedan) Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Rear window

- Removal --> **Undamaged rear window, removing**
- When installing, note direction of joint - **arrow** - in magnified area of illustration.
- After inserting window, pull up to dimension - **a** - = 6.5 mm at roof.
- Align window at sides.

2 - Adhesive end profile

- Adhere next to vertical rear window defrosting strips
- Adhesive must not touch distributing wire for rear window defroster.

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3 - Adhesive bead

- Note varying spacing dimensions to window edge.
- The dimensions - **b** - and - **c** - are achieved when you allow the application nozzle to touch each inner edge of the molding.
- The distance to lower window edge dimension - **d** - is 15mm.
- Bead cross section

- Bead width = 8 ± 2 mm
- Bead height = 13.5 ± 1.5 mm

4 - Spacers

- Note different heights for standard glass and tinted glass.
- Place spacers at distance of 3mm to lower window edge onto markings applied in ceramic screen printed area.

Undamaged rear window, removing

NOTE:

- **Always wear protective glasses and leather gloves when removing a window.**

- Unclip rear shelf. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
- Disconnect connections for rear window defrost and window antenna.
- Press connections at window towards center of vehicle.

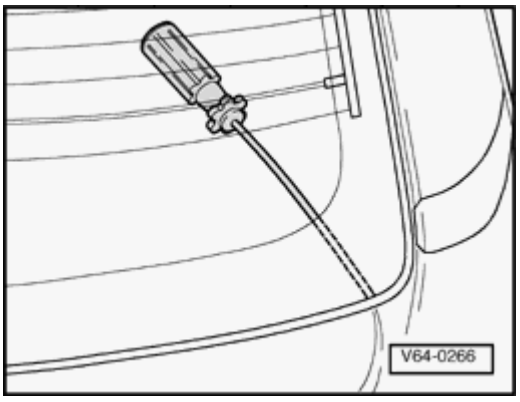


Fig. 265: Pressing Awl Through Adhesive Sealing Material In Lower Window Corner, Until Eye Of Awl Is Visible Outside Of Vehicle
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Press awl through adhesive sealing material in lower window corner, until eye of awl is visible outside of

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vehicle.

- Thread beginning of cutting cord through eye and pull into vehicle interior.

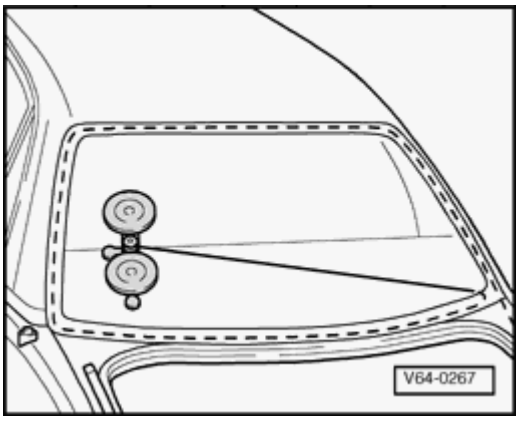


Fig. 266: Placing Cutting Cord Around Window
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Thread cutting cord through spooling tool and clamp securely.
- Place cutting cord around window as shown.
- Cutting cord must be pressed under gap covers on upper window edge and side window edges.

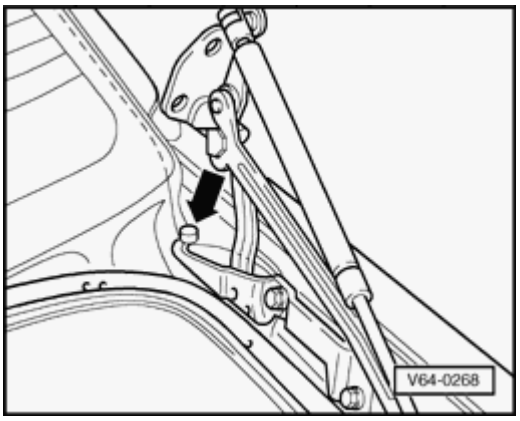


Fig. 267: Laying End Of Cutting Cord Around Buffer Stop
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Lay end of cutting cord around buffer stop - **arrow** - and tighten with bolt for rear lid hinge.

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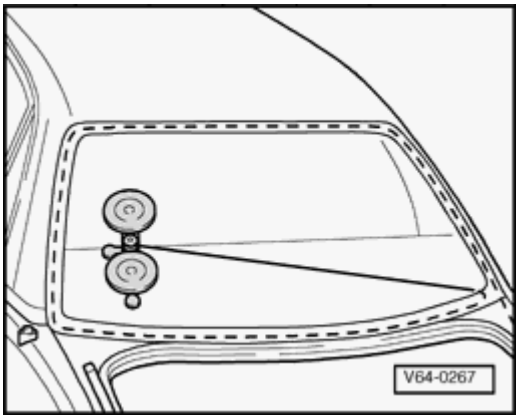


Fig. 268: Placing Cutting Cord Around Window
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Cut first section.

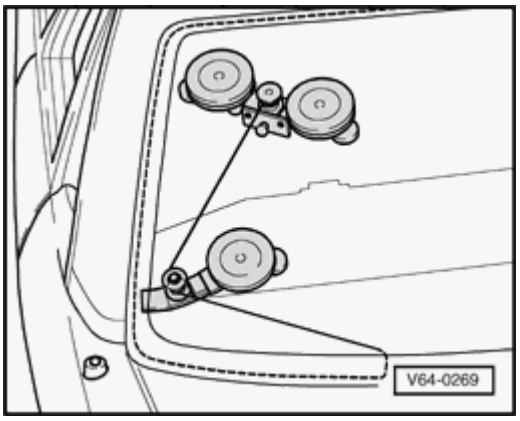


Fig. 269: Moving Winding Device And Attaching Relay Pulley In Lower Window Radius
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Move winding device as shown and attach relay pulley in lower window radius.
- Route cutting cord as shown.
- Cut adhesive up to point where cord no longer runs in relay pulley.

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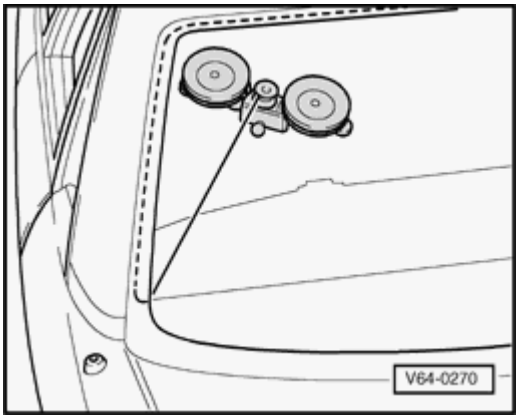


Fig. 270: Removing Relay Pulley And Continue To Cut Adhesive
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove relay pulley and continue to cut adhesive.

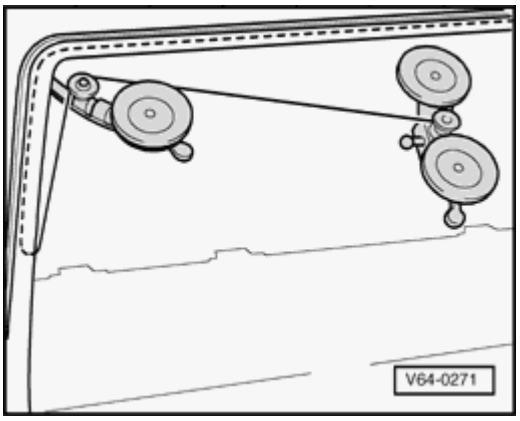


Fig. 271: Moving Winding Device And Attaching Relay Pulley In Lower Window Radius
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Move winding device as shown and attach relay pulley in lower window radius.
- Route cutting cord as shown.
- Cut adhesive up to point where cord no longer runs in relay pulley.
- Insert 1474/12 protective foil between molded headliner and rear window.

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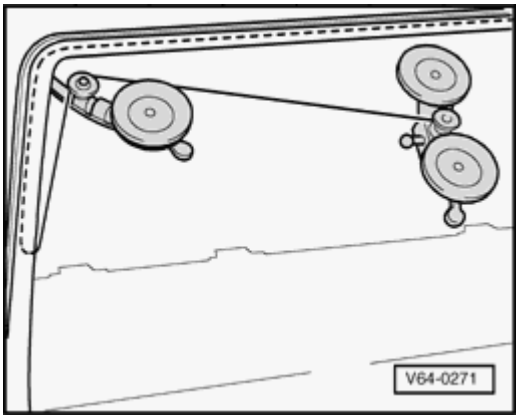


Fig. 272: Removing Relay Pulley And Continuing To Cut Adhesive
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove relay pulley and continue to cut adhesive.
- Repeat these steps in top right and bottom right corners of windshield.
- Cut glass completely free in this manner.
- Remove window using double suction cups.

Damaged rear window, removing

CAUTION: Always wear protective glasses and leather gloves when removing a window.

Protect body and interior from glass splinters.

- Remove glass pieces up to adhesive material.

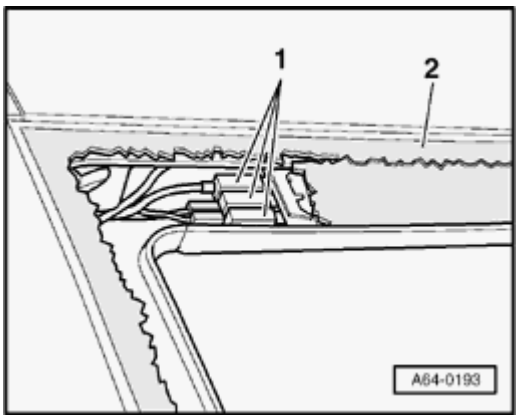


Fig. 273: Disconnecting Connector For Antenna And Amplifier
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Disconnect connector - **1** - for antenna and amplifier.
- Remove harness connectors for glass defroster.

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- Mask flange all around with fabric reinforced adhesive tape.

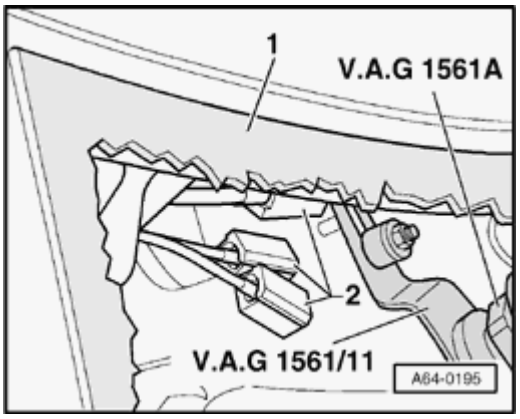


Fig. 274: Removing Adhesive Sealing Material (With Glass Residue) From Window Opening Using Electric Cutter And Knife V.A.G 1561/11 (With Stopper Roll)
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove adhesive sealing material (with glass residue) - **1** - from window opening using electric cutter and knife V.A.G 1561/11 (with stopper roll).

Preparing for window installation

NOTE:

- **If windshield flange was damaged during removal, paint structure should be repaired according to specifications in article, "Vehicle-Paint" and if necessary, corrosion repair measures should be taken according to guidelines in "Surface Technology/Chemical Materials Folder".**

- Observe different spacers for tinted glass and standard glass.
- Adhere lower spacer onto rear window according to the markings.

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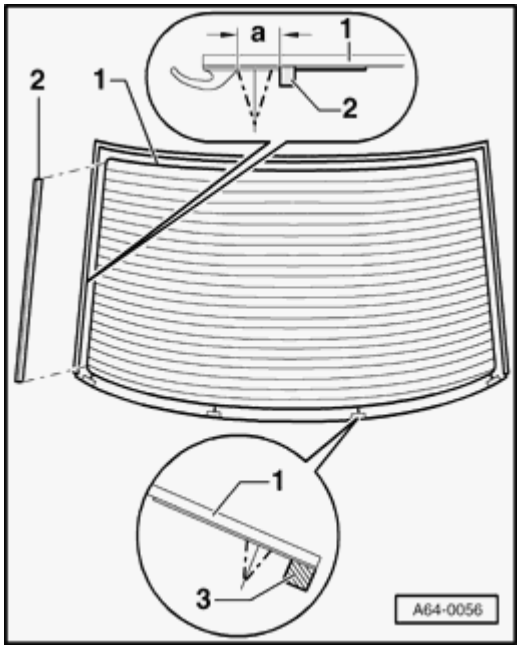


Fig. 275: Preparing For Window Installation
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Adhesive stopper profile - **2** - must be adhered onto left side, centered on antenna wire next to distributing wire for rear window heater.
- On the right side, adhere inner edge of profile onto outer edge of distributing wire for rear window heater.

NOTE:

- **If adhesive sealing material leaks out at lower window edge during installation, this must be removed immediately.**

CAUTION: Window adhesive must not come into contact with the antenna wire or the distributing wire for rear window heater under any circumstances.

For undamaged removed windshield

- When reusing an undamaged window, cut back smoothly residual adhesive sealing material on window and flange using electric cutter V.A.G 1561A and scraper V.A .G 1561/10; do not remove completely!
- Residual material acts as a base for the new adhesive sealing material.

CAUTION:

- **Keep adhesive surface free of dirt and grease.**
- **Only cut back adhesive surface shortly before installation.**
- **Do not prime or use a cleaning solution on the adhesive surface.**

New window, installing

- Clean windshield in adhering area using D 009 401 04 and prime using D 009 200 02 glass/paint primer.

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Applying primer

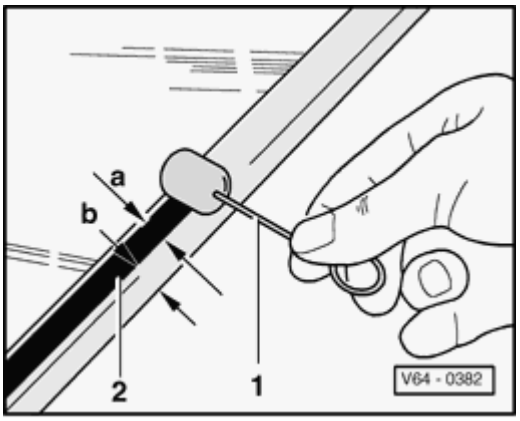


Fig. 276: Applying Primer Evenly In One Pass Using Applicator
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Apply primer - **2** - along circumference evenly and in one motion using applicator - **1** -.
- Begin application with a fully saturated felt. Air drying time approx. 10 minutes.

- Primer dimensions: Dimension - **a** - + approx. 20 mm

- Apply primer in center of adhesive bead.

CAUTION: Ceramic application on window is not primer! It must be primed before the application of adhesive sealing material!

NOTE:

- **Do not touch up primer strip until after primer has thoroughly dried.**

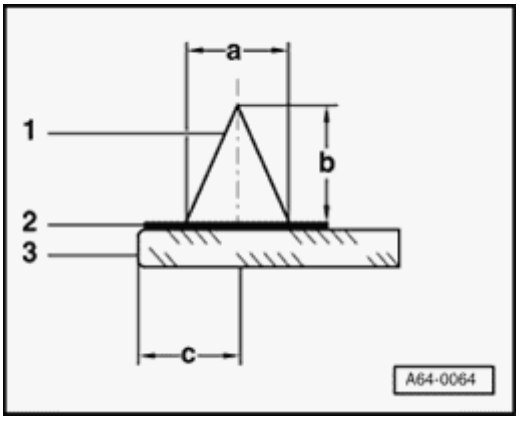


Fig. 277: Dimensions For Application Of Adhesive
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Dimensions for application of adhesive

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1 - Adhesive bead

2 - Primer

3 - Washer

- Bead width - **a** - = 8 ± 2 mm
- Bead height - **b** - = 12 + 3 mm
- Dimension - **c** - = note varying spacing dimensions to window edge --> **Rear window (Sedan), removing and installing**

Installing rear window

- After preparatory work has been performed, apply the adhesive.

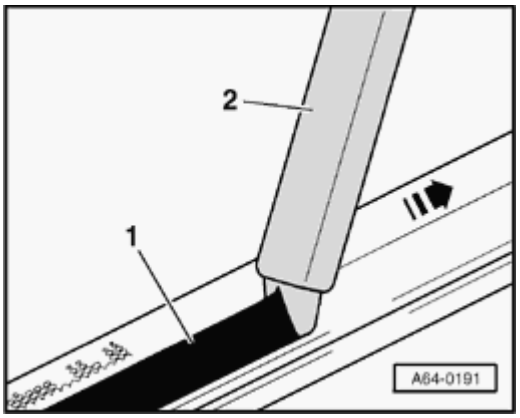


Fig. 278: Positioning Complete Surface Of Nozzle Onto Window
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Position complete surface of nozzle - **2** - onto window.
- **- Arrow -** indicates direction of application

NOTE:

- **Cross-section thickness of adhesive bead - 1 - is determined by dimension of opening in nozzle tip and rate of application.**

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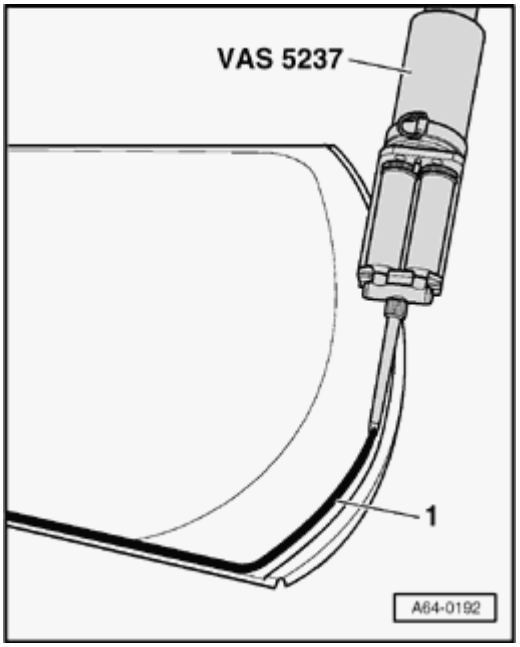


Fig. 279: Applying Adhesive Sealing Material All Around
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Apply adhesive sealing material all around, as shown in illustration.
- Note varying spacing dimensions to window edge --> **Rear window (Sedan), removing and installing**.
- Using two double suction cups, install rear window in window opening.

CAUTION: Window must be installed within 15 minutes, otherwise bonding properties of adhesive will be impaired.

- Align windshield at sides.
- Spacing between edge of window and roof frame must be 6.5 mm.
- Observe curing time.

REAR WINDOW (AVANT), REMOVING AND INSTALLING

Assembly overview

NOTE:

- **The printed gap covers on window edges have been discontinued in vehicles as of Vehicle Identification Number (VIN) 400 001.**
- **New windows without gap covers can be installed retroactively in older vehicles.**

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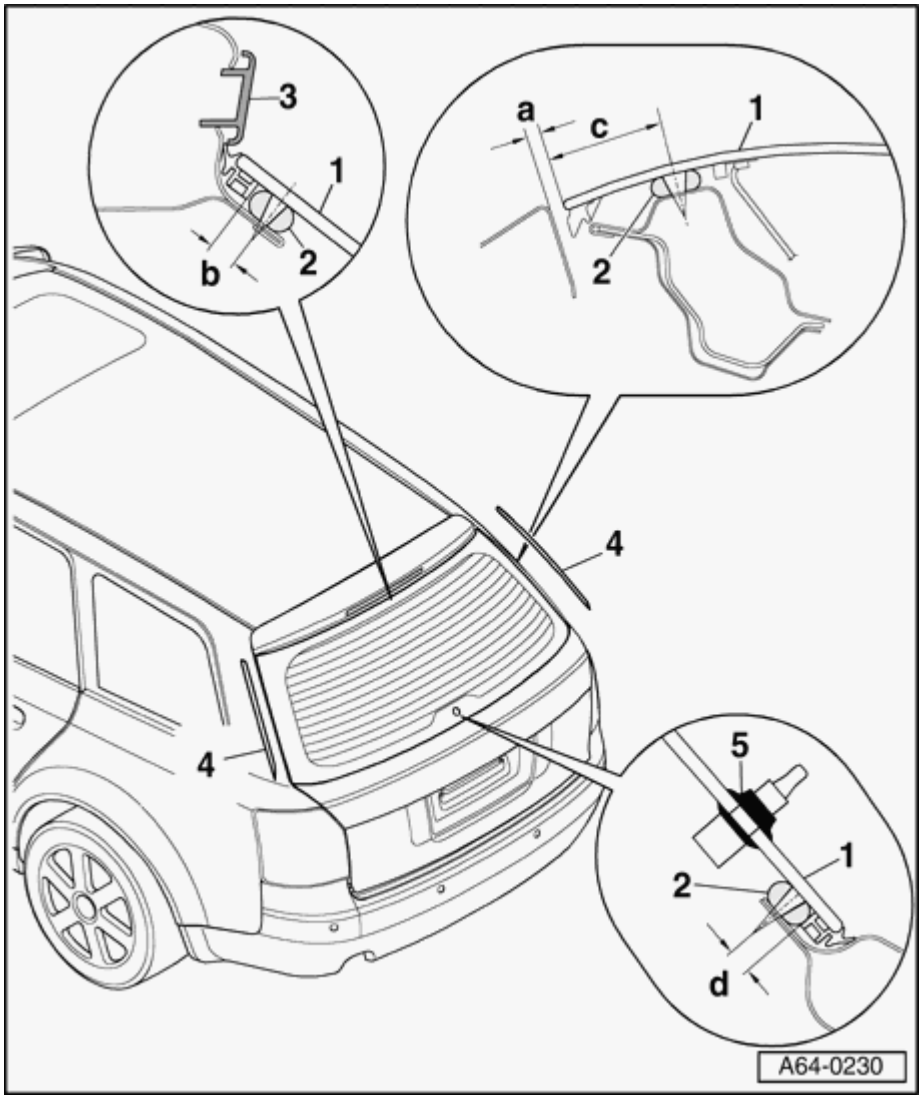


Fig. 280: Rear Window (Avant), Assembly Overview
Courtesy of VOLKSWAGEN UNITED STATES, INC.

1 - Rear window

- Undamaged side window, removing --> **Undamaged rear window, removing**.
- Removing damaged rear window --> **Damaged rear window, removing**.
- Dimension - **a** - even out when installing.

2 - Adhesive bead

- Observe curing times --> **Minimum curing times!**
- Note varying spacing dimensions to window edge.
- Dimension - **b** - = 6 mm
- Dimension - **c** - = 38 mm

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- Dimension - **d** - = 6 mm
- Bead cross section
- Bead width = 8 +2 mm
- Bead height = 13.5 +1.5 mm

3 - High-mount brake light

- Removed before removing rear window. Refer to
  - **94 LIGHTS, SWITCHES - EXTERIOR**
  - **94 LIGHTS, SWITCHES - EXTERIOR** for ELECTRICAL EQUIPMENT, CABRIOLET

4 - Sealing strips

- Pull off before removing rear window.

5 - Seal for rear window wiper

CAUTION: When installing window, the axle of windshield wiper motor must be centered on grommet, otherwise there will be leaks.

Undamaged rear window, removing

CAUTION: Always wear protective glasses and leather gloves when removing a window.

- Remove rear lid trim. -->
  - **70 - INTERIOR TRIM**
  - **70 - INTERIOR TRIM** for BODY INTERIOR - CABRIOLET
- Remove rear window wiper motor. -->
  - **92 WINDSHIELD WIPER WASHER SYSTEM**
  - **92 WINDSHIELD WIPER & WASHER SYSTEM** for ELECTRICAL EQUIPMENT, CABRIOLET
- Disconnect electrical harness connectors for heated rear window and antennas.
- Pull off side sealing strip at rear window.

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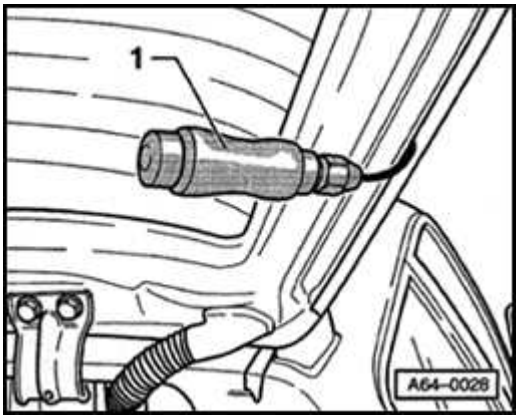


Fig. 281: Piercing Through Adhesive Sealing Material Using A Guide Needle With Handle From V.A.G 1755 Window Removing Kit
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Open rear lid.
- Pierce through adhesive sealing material using a guide needle with handle - **1** - from V.A.G 1755 window removing kit.
- Remove handle and thread end of cutting cord through eye of the guide needle.

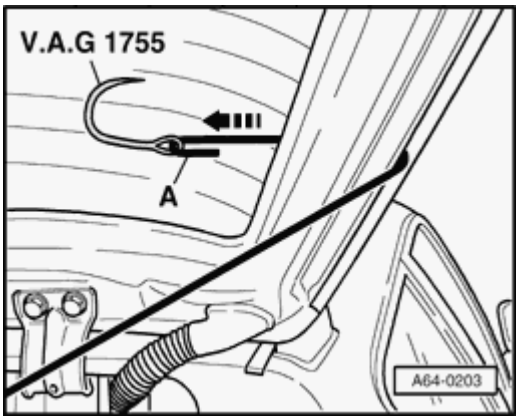


Fig. 282: Pulling Cutting Cord End Inward To Opposite Window Side With Guide Needle From V.A.G 1755 Window Removing Kit
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Pull cutting cord end - **A** - inward (use pliers and protective gloves) to opposite window side with guide needle from V.A.G 1755 window removing kit.

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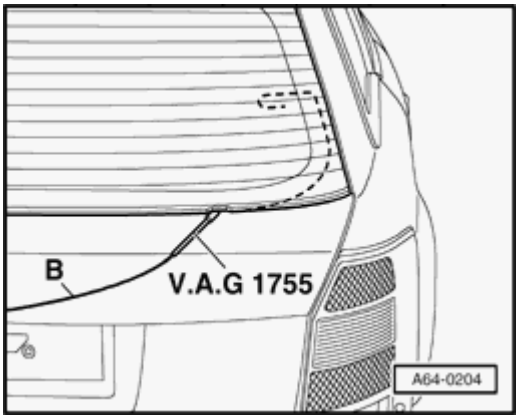


Fig. 283: Inserting Cutting Cord End Around Rear Window Using Small Tube From V.A.G 1755 Window Removing Kit
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Using plastic wedge, loose sealing lip from glass flange and spray with D009 401 04 cleaning solution (lubricant replacement).
- Insert cutting cord end - **B** - around rear window using small tube from V.A.G 1755 window removing kit.

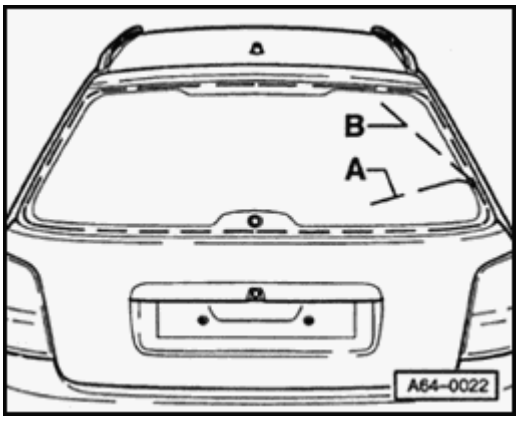


Fig. 284: Using Needle And Handle To Pull Second Cutting Cord End
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Using needle and handle, pull second cutting cord end - **B** - inward as shown.

NOTE:

- **Cutting cord ends - A - and - B - may not be pulled diagonally.**

- Thread in cutting cord end - **A** - into spooling tool V.A.G 1654 and secure.

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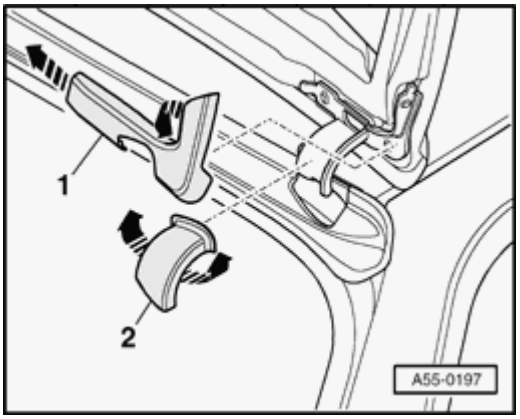


Fig. 285: Removing Cover For Rear Lid Hinge And Cable Guide From Rear Lid Hinge
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Remove cover - **1** - for rear lid hinge and cable guide - **2** - from rear lid hinge - **arrows** -.

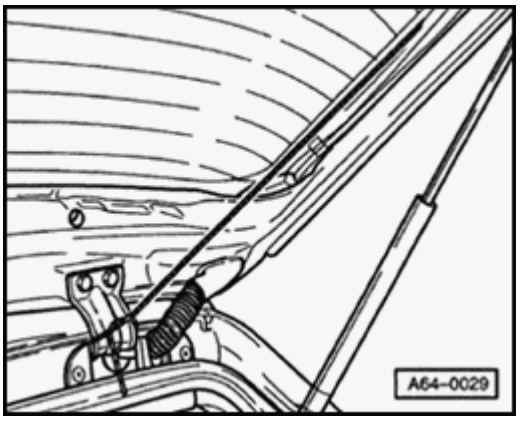


Fig. 286: Fastening Cutting Cord End To Lid Hinge
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Fasten cutting cord end - **B** - to lid hinge.

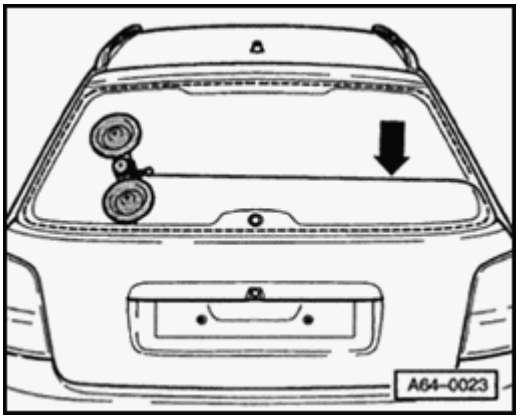


Fig. 287: Cutting Glass Free At Bottom
Courtesy of VOLKSWAGEN UNITED STATES, INC.

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- Fasten V.A.G 1654 spooling tool as shown to rear window.
- When cutting side area, press cutting cord in - **direction of arrow** -.
- Cut glass free at bottom.

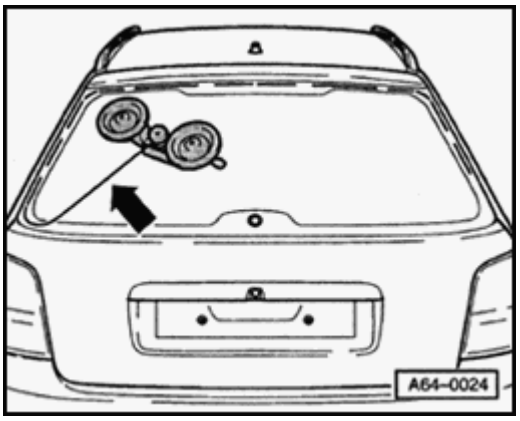


Fig. 288: Cutting Glass Free At Side
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Move winding device as shown, and continue to cut window free.
- When cutting lower area, press cutting cord in - **direction of arrow** -.
- Cut glass free at side.
- Move winding device as shown, and continue to cut window free.

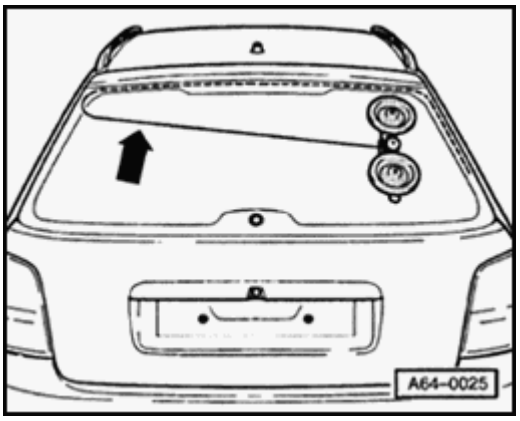


Fig. 289: Cutting Glass Free At Top
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- When cutting side area, press cutting cord in - **direction of arrow** -.
- Cut glass free at top.
- Move winding device as shown, and continue to cut window free.

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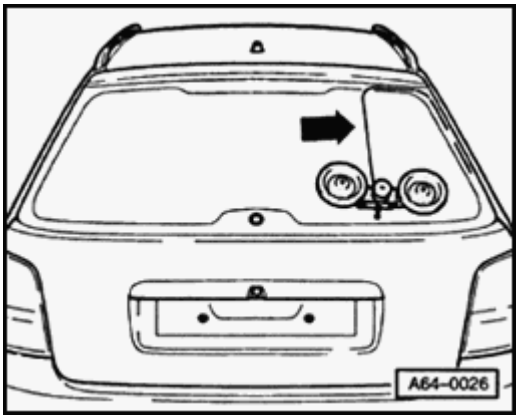


Fig. 290: Cutting Window Away Completely And Lift Out From Rear Lid
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- When cutting upper area, press cutting cord in - **direction of arrow** -.
- Cut window away completely and lift out from rear lid.

Damaged rear window, removing

CAUTION: Always wear protective glasses and leather gloves when removing a window.

Protect body and interior from glass splinters.

- Remove glass pieces up to adhesive material.
- Disconnect connections for heated rear window and antennas.
- Bond flange all around with fabric reinforced adhesive tape.
- Remove adhesive sealing material (with glass residue) from window opening using electric cutter and knife V.A.G 1561/10 (with stopper roll).

Preparing for window installation

NOTE:

- **If windshield flange was damaged during removal, paint structure should be repaired according to specifications in article, "Vehicle-Paint" and if necessary, corrosion repair measures should be taken according to guidelines in "Surface Technology/Chemical Materials Folder".**

For undamaged removed windshield

- When reusing an undamaged window, cut back smoothly residual adhesive sealing material on window and flange using electric cutter V.A.G 1561A and scraper V.A.G 1561/8; do not remove completely!
- Residual material acts as a base for the new adhesive sealing material.

CAUTION:

- **Keep adhesive surface free of dirt and grease.**

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- **Only cut back adhesive surface shortly before installation.**
- **Do not prime or use a cleaning solution on the adhesive surface.**

New window, installing

- Clean windshield in adhering area using D 009 401 04 and prime using D 009 200 02 glass/paint primer.

CAUTION:

-
- **For this purpose, apply adhesive stopper profile next to distributing wire on new replacement windows.**

Applying primer

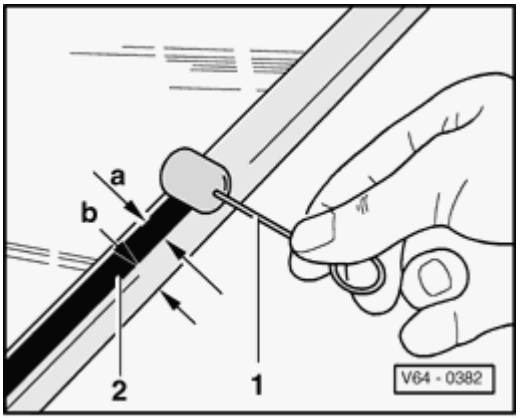


Fig. 291: Applying Primer Evenly In One Pass Using Applicator
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Apply primer - **2** - D 009 200 02 uniformly all around on window, centering by markings, using applicator - **1** - , Part No. D 009 500 25 (felt ball with wire).
- This determines the distance to window edge - **dimension b** -.
- Primer width - **dimension a** - is determined by the markings on window.
- Begin application with a fully saturated felt. Air drying time approx. 10 minutes.

CAUTION: Ceramic application on window is not primer! It must be primed before the application of adhesive sealing material!

NOTE:

- **Do not touch up primer strip until after primer has thoroughly dried.**

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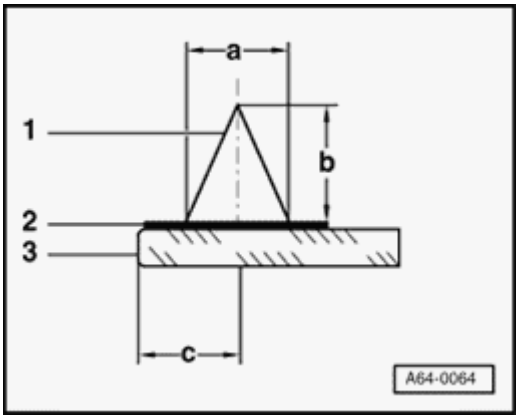


Fig. 292: Dimensions For Application Of Adhesive
Courtesy of VOLKSWAGEN UNITED STATES, INC.

Adhesive bead cross section

1 - Adhesive bead

2 - Primer

3 - Washer

- Dimension - **a** - = 8 ± 2 mm.
- Dimension - **b** - =13.5 ± 1.5 mm.
- Dimension c is determined by markings on window

Installing rear window

- After preparatory work has been performed, apply the adhesive.

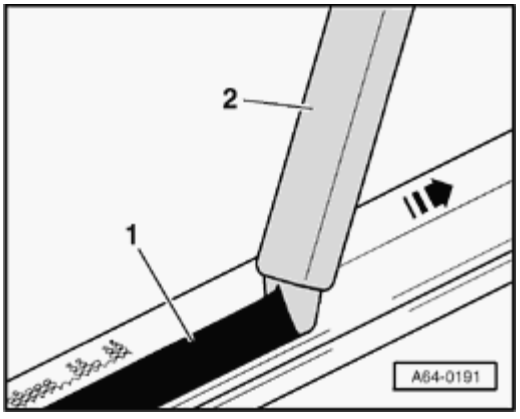


Fig. 293: Positioning Complete Surface Of Nozzle Onto Window
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Position complete surface of nozzle - **2** - onto window.

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- **- Arrow** - indicates direction of application

NOTE:

- **Cross-section thickness of adhesive bead - 1 - is determined by dimension of opening in nozzle tip and rate of application.**

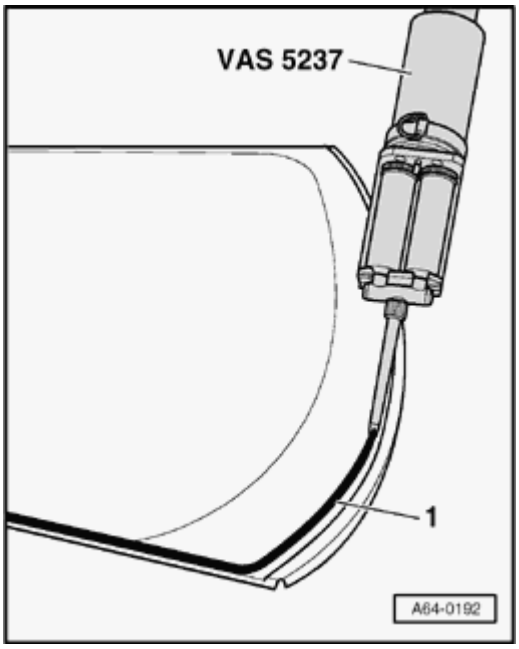


Fig. 294: Applying Adhesive Sealing Material All Around
Courtesy of VOLKSWAGEN UNITED STATES, INC.

- Apply adhesive sealing material all around, as shown in illustration.
- Note varying spacing dimensions to window edge --> **Rear window (Avant), removing and installing**.
- Using two double suction cups, install rear window in window opening.

CAUTION: Window must be installed within 15 minutes, otherwise bonding properties of adhesive will be impaired.

- Align windshield at sides.
- Secure window glass in windshield opening using adhesive tape during curing process.
- Observe curing time.

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