# EA14-002 VOLKSWAGEN 8/24/2014 EXHIBIT TO REQUEST 8 ATTACHMENTS (VW)

Repair manual ElsaPro Job number: 121297

DMS order number:

VIN: - Model Year: **2012** 

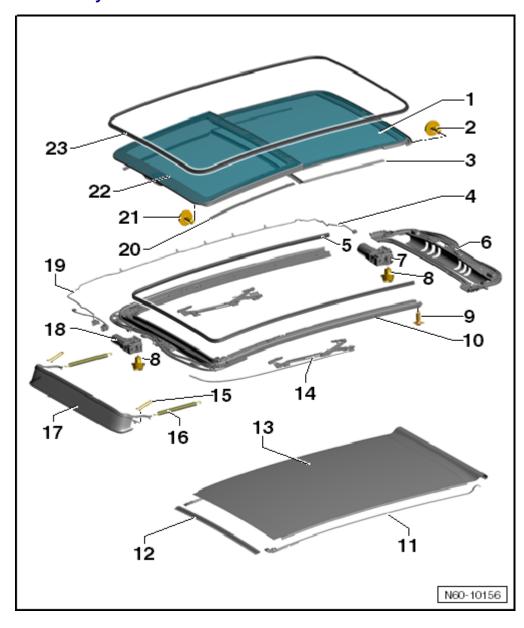
Sales code: **7P52J3** Model description: **Touareg V6TDI 165 TDIA8A** 

Engine code: CATA Transmission code: NAB

Official license plate: Final drive code:

User name: - Service advisor - name:

# **Panorama Sunroof Assembly Overview**



#### 1 - Rear Glass Panel

2 - Bolt
□ Quantity: 6
□ 7 Nm
3 - Seal
□ For rear glass panel
4 - Electrical Wiring
5 - Inner Seal
<ul> <li>Installed on the assembly frame</li> </ul>
6 - Rear Lid Part
7 - Sunshade Motor
□ Initialization, refer to → Chapter "Panorama Sunroof Adaptation"
8 - Bolt
□ 8 Nm
<ul><li>For securing the motors</li></ul>
□ 3 per motor
9 - Bolt
□ 8 Nm
□ For securing the assembly frame
□ Quantity: 22
10 - Assembly Frame
11 - Cable
<ul><li>For the sun shade</li></ul>
12 - Bow
13 - Sun Shade
14 - Tilting Mechanism
□ For front glass panel, with control cables
15 - Supporting Bracket
16 - Pull-spring
17 - Wind Deflector
18 - Sunroof Motor
□ Initialization, refer to → Chapter "Panorama Sunroof Adaptation"
19 - Connectors
20 - Trim
21 - Bolt
□ 7 Nm
<ul><li>Quantity: 8</li></ul>

- 22 Front Glass Panel
- 23 Outer Seal

Page 1 of 5 Assembly Frame

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ElsaPro Job number: 121297 Repair manual

DMS order number:

VIN: -Model Year: 2012

Sales code: 7P52J3 Model description: Touareg V6TDI 165 TDIA8A

Engine code: CATA Transmission code: NAB

Official license plate: Final drive code:

User name: -Service advisor - name:

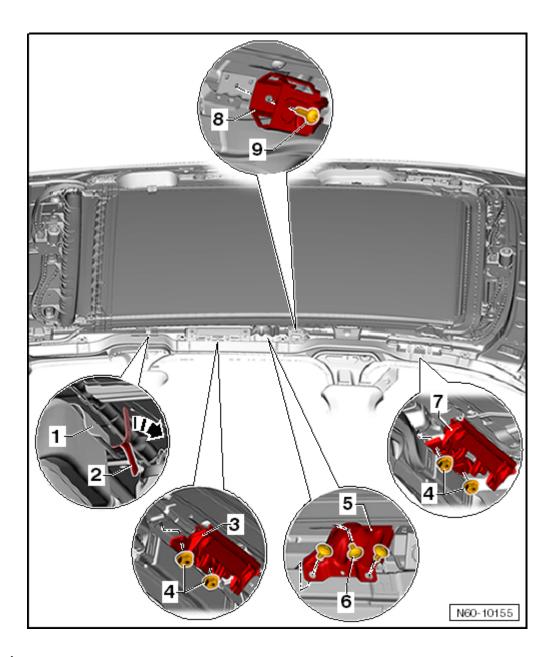
# **Assembly Frame**

# Removing



At least two technicians are needed for removing and installing the assembly frame.

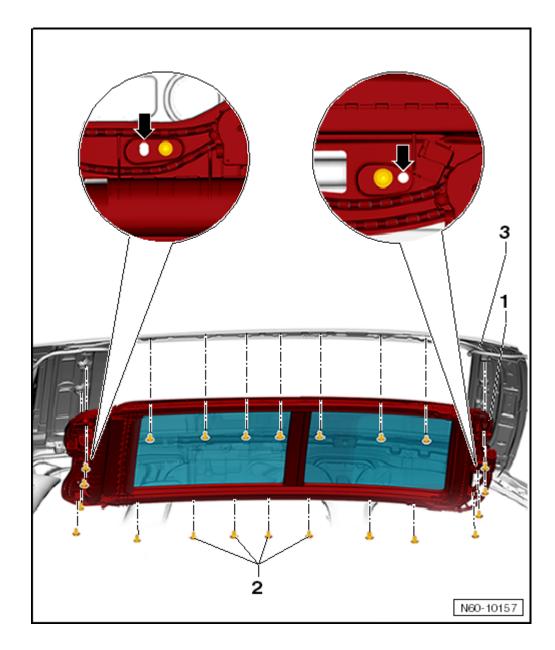
Assembly Frame Page 2 of 5



## Perform the following:

- Removing headliner. Refer to
   → Rep. Gr.70.
- Remove the left and right bolts -9- and the bracket for the screen separator -8-.
- Remove the left and right bolts -6- and the bracket for the screen separator -5-.
- Remove the left and right nuts -4- and the bracket for the grab handle -7-.
- Remove the left and right nuts -4- and the bracket for the rear grab handle -3-.
- Bend down the left and right bracket -2- at the airbag mount -1--arrow-.
- Disconnect the water drain hoses from the outlet tubes.
- Disconnect the harness connector to the wiring harness on the sunroof motor.

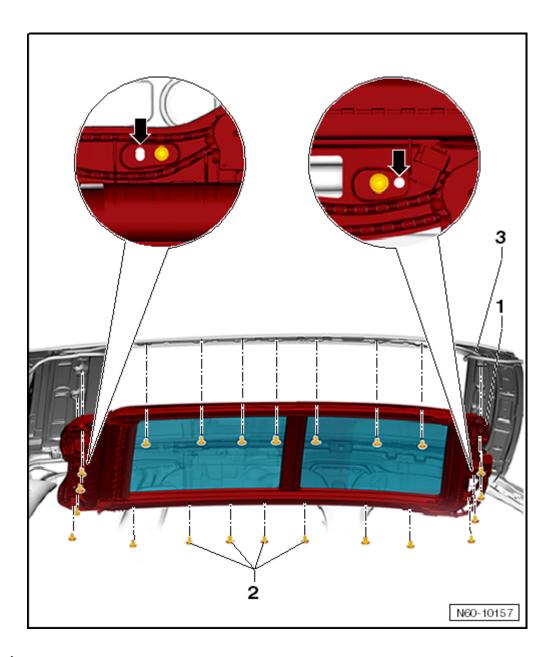
Assembly Frame Page 3 of 5



 Remove the bolts -2- of the assembly frame -1- and lift the assembly frame out of the vehicle together with at least one additional technician.

### Installation

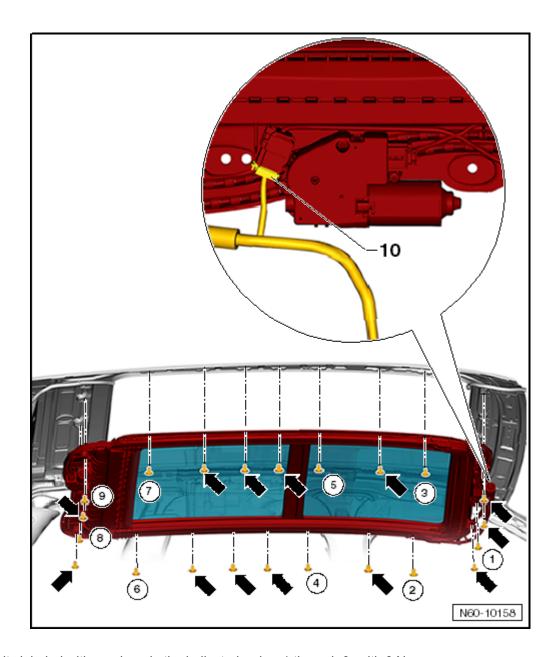
Assembly Frame Page 4 of 5



# Perform the following:

- Lift the assembly frame -1- into the vehicle with at least one additional technician.
- Align the assembly frame -1- during connecting with 2 cylindrical pins (8 mm reversed drill bit) at the front and rear centering holes -arrows- and with respect to the roof.
- Install but do not tighten the bolts -2-.
- Connect all water drain hoses -3-.

Assembly Frame Page 5 of 5



- Tighten the bolts labeled with numbers in the indicated order -1 through 9- with 8 Nm.
- Tighten the remaining bolts -arrows- in any order with 8 Nm.

Install in reverse order of removal.

Glass Panel Page 1 of 4

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Repair manual ElsaPro Job number: 121297

DMS order number:

VIN: - Model Year: 2012

Sales code: **7P52J3** Model description: **Touareg V6TDI 165 TDIA8A** 

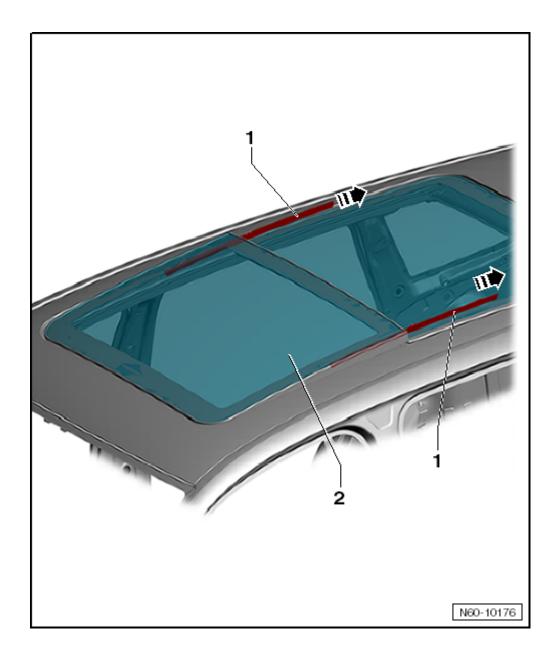
Engine code: CATA Transmission code: NAB

Official license plate: Final drive code:

User name: - Service advisor - name:

# **Glass Panel**

# Removing



Glass Panel Page 2 of 4

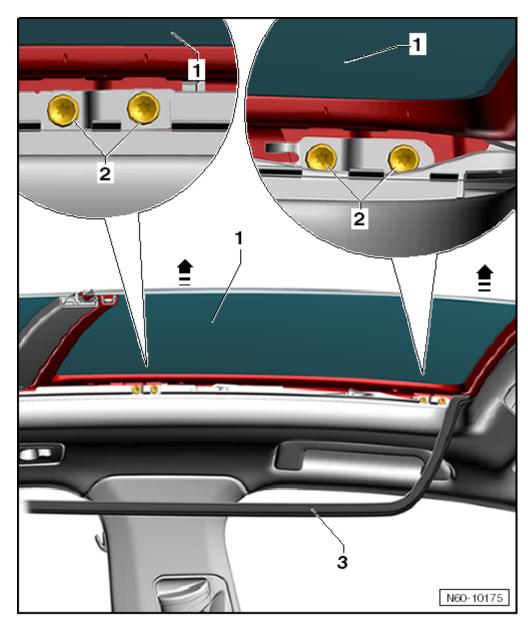
# Perform the following:

- Open the glass panel -2- so that the trims -1- are accessible.
- Push the trims -1- backward out of the vehicle interior in the -direction of arrow-.



# Note

When removing the screws, use a magnetic tool so that the screws cannot fall into the panorama sunroof mechanism.



- Remove the seal -3- from the assembly frame.
- Remove the left and right bolts -2- from the glass panel -1-.
- Remove the glass panel upward -arrows-.

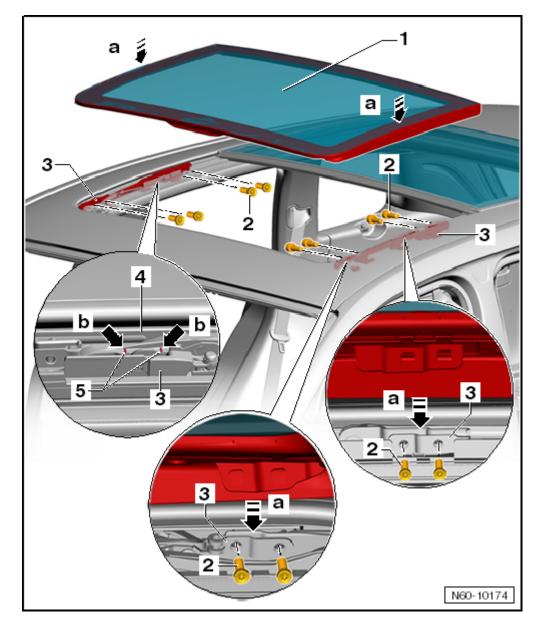
Glass Panel Page 3 of 4

#### Installation



#### Note

- New screws are to be used when installing the glass panel.
- When installing the screws, use a magnetic tool so that the screws cannot fall into the panorama sunroof guide.



### Perform the following:

- If necessary, move the tilting mechanism -3- on both sides so that the markings -5- form one line arrows b-.
- Insert the glass panel -1- from above -arrows a- in the tilting mechanism -3- and install but do not tighten the screws -2-.
- Adjust the front glass panel.
- Tighten the bolts -2-, tightening specification: 7 Nm.

Glass Panel Page 4 of 4



- Install the trim -2- on the glass panel -1- and slide onto the fasteners.
- After completing all the work, perform an sunroof motor adaptation. Refer to → Chapter "Panorama Sunroof Adaptation".

Rear Glass Panel Page 1 of 5

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ElsaPro Job number: 121297 Repair manual

DMS order number:

VIN: -Model Year: 2012

Sales code: 7P52J3 Model description: Touareg V6TDI 165 TDIA8A

Engine code: CATA Transmission code: NAB

Official license plate: Final drive code:

User name: -Service advisor - name:

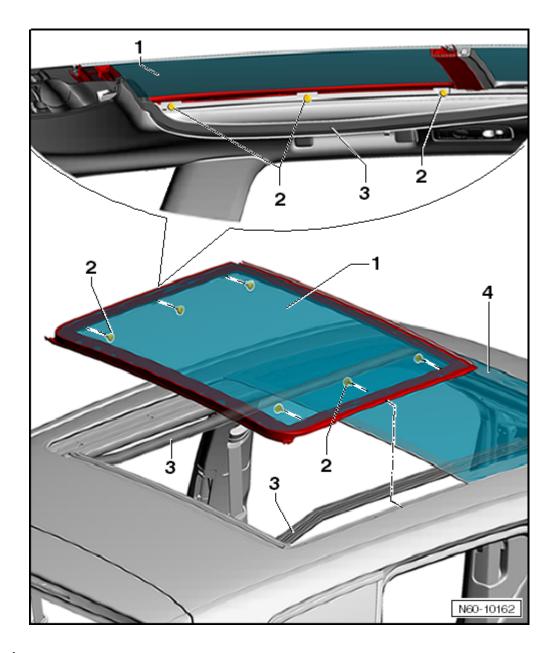
## **Rear Glass Panel**

#### Removing



When unscrewing the bolts, use a magnetic tool so that the bolts cannot fall into the panorama sunroof guide.

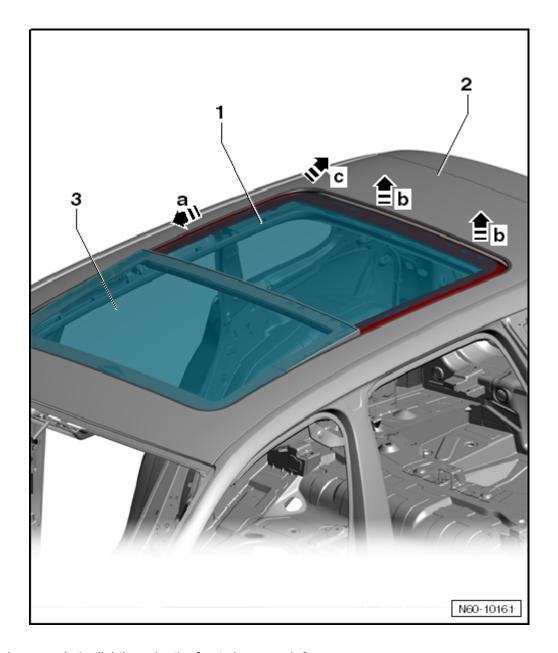
Rear Glass Panel Page 2 of 5



# Perform the following:

- Remove the seal -3- from the assembly frame.
- Remove the left and right bolts -2- from the glass panel -1-.

Rear Glass Panel Page 3 of 5



- Slide the rear glass panel -1- slightly under the front glass panel -3--arrow a-.
- Lift the rear glass panel -1- only in the rear area off of the roof opening -2--arrows b-.
- Guide the rear glass panel -1- up at an angle -arrow c- over the roof -2- and pull out from under the front glass panel -3-.

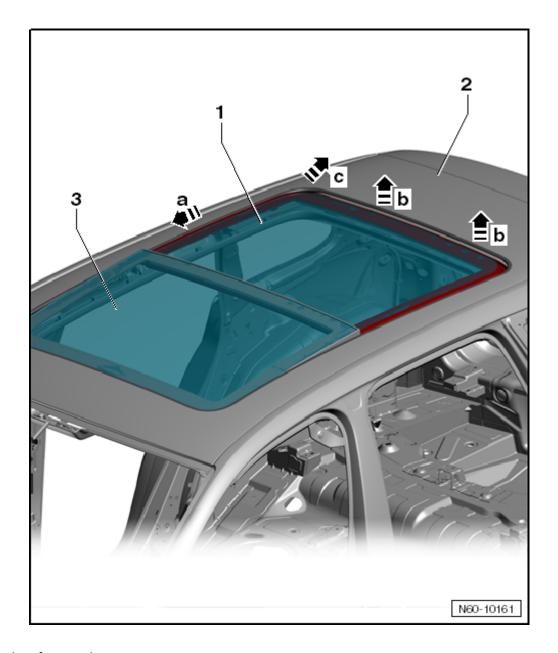
#### Installation



#### Note

- New screws are to be used when installing the glass panel.
- When installing the bolts, use a magnetic tool so that the bolts cannot fall into the panorama sunroof guide.

Rear Glass Panel Page 4 of 5

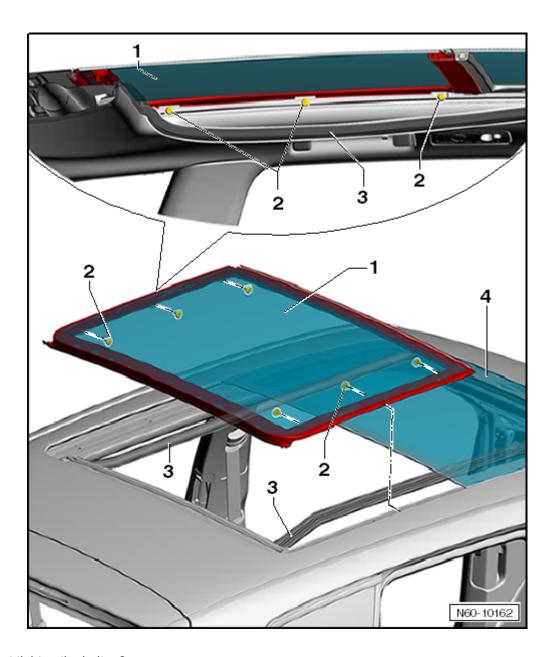


Install in reverse order of removal.

# Perform the following:

- Install the rear glass panel -1- from above at an angle under the front glass panel -3-.
- Install the rear glass panel -1- downward in the rear region into the roof opening -2- and slide it back.

Rear Glass Panel Page 5 of 5



- Install but do not tighten the bolts -2-.
- Adjust the rear glass panel -1-.
- After the rear glass panel is adjusted, tighten the screws. Tightening specification: 7 Nm.
- After completing all work, perform an adaptation of the sunroof motor. Refer to → Chapter "Panorama Sunroof Adaptation".

Outer Seal Page 1 of 3

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Repair manual ElsaPro Job number: 121297

DMS order number:

VIN: - Model Year: 2012

Sales code: **7P52J3** Model description: **Touareg V6TDI 165 TDIA8A** 

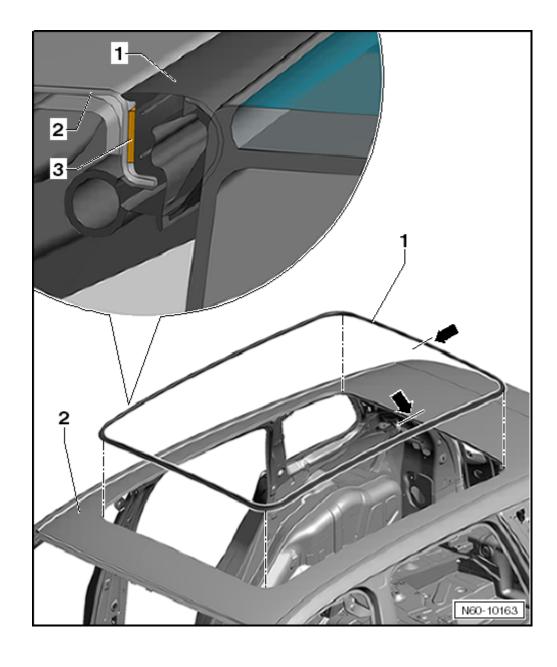
Engine code: CATA Transmission code: NAB

Official license plate: Final drive code:

User name: - Service advisor - name:

# **Outer Seal**

# Removing

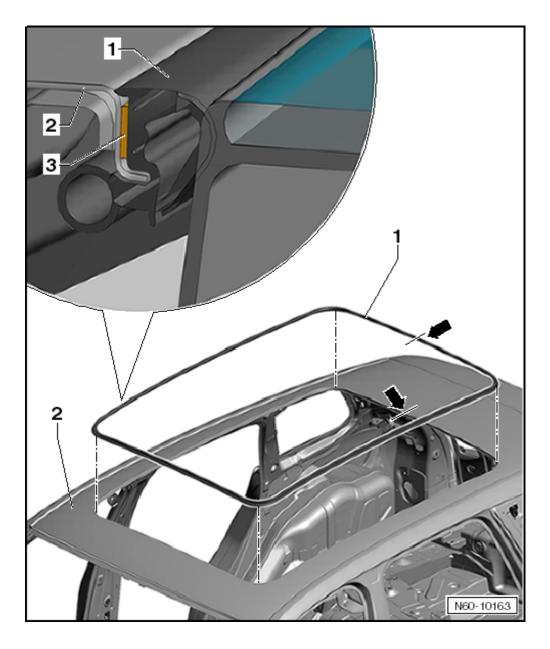


Outer Seal Page 2 of 3

### Perform the following:

- Remove the assembly frame. Refer to → Chapter "Assembly Frame".
- Remove the outer seal -1- with the adhesive surface -3- from the roof -2-.

#### Installation



#### Perform the following:

- Remove any remaining adhesive with Adhesive Strip Remover -VAS 6349-.
- The adhesion surface on the roof cutout must be free of dust and grease.
- Clean the adhesive surfaces thoroughly with Cleaning solution -D 009 401 04-.
- Wipe down the adhesive surfaces on the roof opening with the supplied primer towel.
- Observe the drying times for the supplied primer towel.

Outer Seal Page 3 of 3

Center the new outer seal -1- and the joint -arrows- with respect to the center of the rear roof opening.

- Remove the protective film from the adhesive tape -3- and press the seal onto the roof -2-.
- Press the outer seal on evenly to prevent any excess length.
- Using the Roller -3356-, press the outer seal two times firmly and evenly all the way around.
- Install the assembly frame. Refer to → Chapter "Assembly Frame".

Repair manual ElsaPro Job number: 121252

DMS order number:

VIN: - Model Year: **2012** 

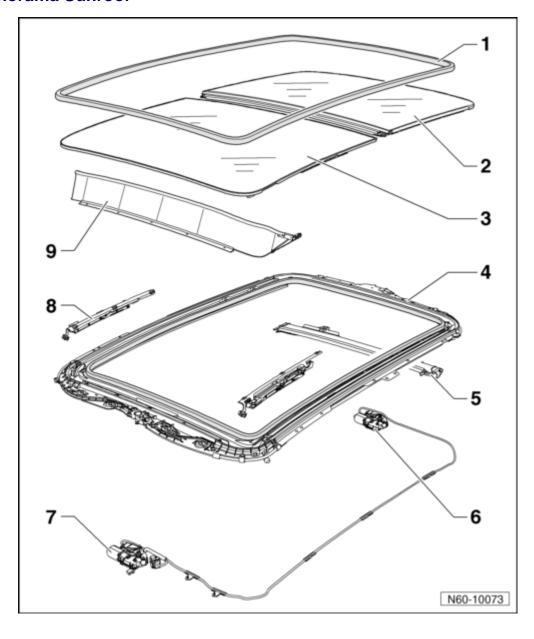
Sales code: 5N27V3 Model description: Tiguan 2.0 US 4M147 TSIA6A

Engine code: CCTA Transmission code: MYZ

Official license plate: Final drive code:

User name: - Service advisor - name:

# **Overview - Panorama Sunroof**



#### 1 - Outer Seal

□ Replacing, refer to → Chapter "Outer Seal, Replacing and Installing".

#### 2 - Rear Glass Panel

- □ Removing and installing, refer to → Chapter "Rear Glass Panel".
- □ Adjusting, refer to → Chapter "Front and Rear Glass Panel Height, Adjusting".

#### 3 - Front Glass Panel

- □ Removing and installing, refer to → Chapter "Glass Panel".
- □ Adjusting, refer to → Chapter "Front and Rear Glass Panel Height, Adjusting".

#### 4 - Assembly Frame

- □ Overview, refer to → Chapter "Overview Assembly Frame".
- □ Removing and installing, refer to → Chapter "Assembly Frame".

#### 5 - Sun Shade

□ Removing and installing, refer to → Chapter "Sun Shade".

#### 6 - Sunshade Motor

- □ Removing and installing, refer to → Chapter "Sun Shade Motor".
- □ Initialization, refer to → Chapter "Panorama Sunroof Basic Setting"

#### 7 - Sunroof Motor

- □ Removing and installing, refer to → Chapter "Sunroof Motor".
- □ Initialization, refer to → Chapter "Panorama Sunroof Basic Setting"

#### 8 - Tilting Mechanism

□ Removing and installing, refer to → Chapter "Front Sunroof Glass Panel Tilt Mechanism and Cable".

#### 9 - Wind Deflector

□ Removing and installing, refer to → Chapter "Wind Deflector".

Installing Page 1 of 3

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Repair manual ElsaPro Job number: 121252

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VIN: - Model Year: 2012

Sales code: 5N27V3 Model description: Tiguan 2.0 US 4M147 TSIA6A

Engine code: CCTA Transmission code: MYZ

Official license plate: Final drive code:

User name: - Service advisor - name:

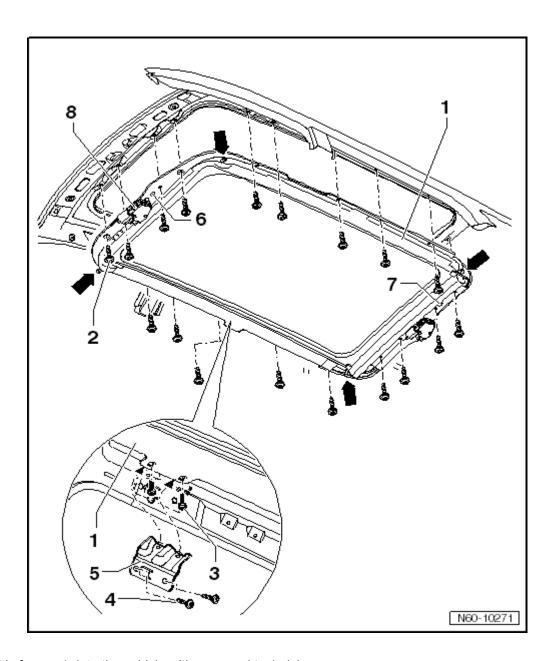
# Installing

### Special tools and workshop equipment required

♦ Roller -3356-

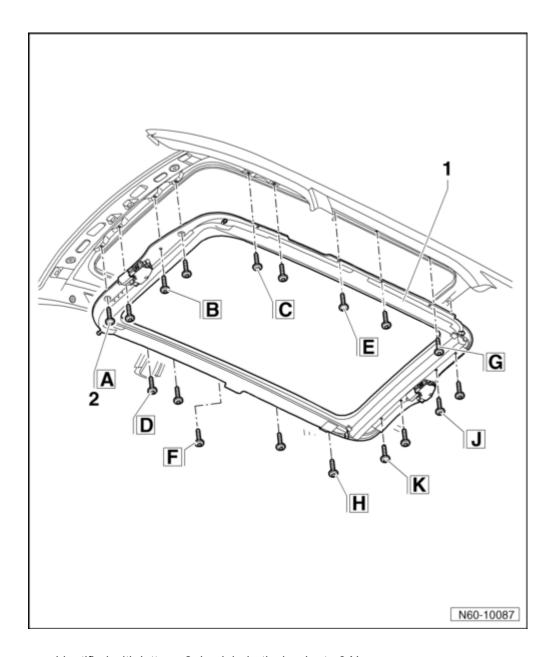
- ♦ Torque Wrench 1783 2-10Nm -VAG1783-
- ♦ Adhesive Strip Remover -VAS6349-

Installing Page 2 of 3



- Lift the assembly frame -1- into the vehicle with a second technician.
- Align the assembly frame by using 2 cylindrical pins (reversed drill bit) on the roof centering holes -6and -7-.
- Insert the bolts -2- but do not tighten them.
- Tighten the bolts -3- to 8 Nm.
- Tighten the bolts -4- to 4.5 Nm.

Installing Page 3 of 3



- Tighten first the screws identified with letters -2- in alphabetical order to 8 Nm.
- Tighten the remaining screws -2- on the assembly frame -1- to 8 Nm.

Install in reverse order of removal.

### Vehicles with screen separator wall:

Install the screen separator bracket, refer to
 → Rep. Gr.68.

#### All vehicles:

- Install the grab handle (roof), refer to
   → Rep. Gr.68.
- Install the headliner, refer to
   → Rep. Gr.70.

Installing Page 1 of 2

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Repair manual ElsaPro Job number: 121252

DMS order number:

VIN: - Model Year: 2012

Sales code: 5N27V3 Model description: Tiguan 2.0 US 4M147 TSIA6A

Engine code: CCTA Transmission code: MYZ

Official license plate: Final drive code:

User name: - Service advisor - name:

# Installing

#### Special tools and workshop equipment required

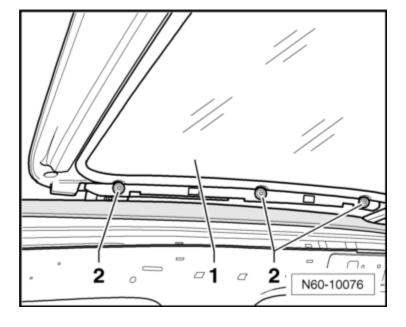
♦ Roller -3356-

- Torque Wrench 1783 2-10Nm -VAG1783-
- ♦ Adhesive Strip Remover -VAS6349-



#### Note

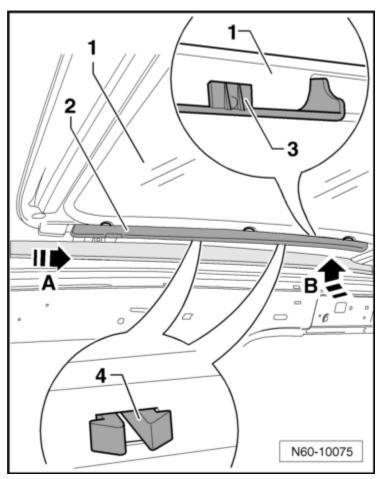
- ♦ New screws are to be used when installing the glass panel.
- When removing the screws, use a magnetic tool so that the screws cannot fall into the guide for the panorama sunroof mechanism.
- Install the glass panel -1- from above and install the bolts -2-, but do not tighten them.
- Front Glass Sunroof Panel, Adjusting, refer to → Chapter "Front and Rear Glass Panel Height, Adjusting".
- Tighten the bolts -2- to 5 Nm.



Installing Page 2 of 2

 Engage the front trim -2- into the glass panel -1- and slide it in direction of arrow A-.

- Insert the tabs -4-.
- Engage the retaining tab -3- on the back -arrow B-.
- After finishing all work, perform a adaptation procedure for the sunroof motor, refer to → Chapter "Panorama Sunroof Basic Setting".



Installing Page 1 of 1

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Repair manual ElsaPro Job number: 121252

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Sales code: 5N27V3 Model description: Tiguan 2.0 US 4M147 TSIA6A

Engine code: CCTA Transmission code: MYZ

Official license plate: Final drive code:

User name: - Service advisor - name:

# Installing

#### Special tools and workshop equipment required

♦ Roller -3356-

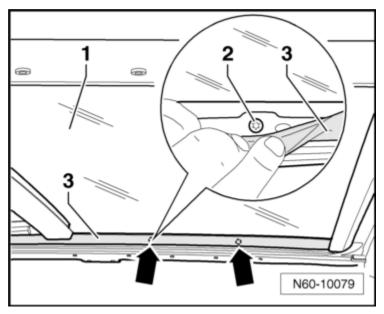
- ◆ Torque Wrench 1783 2-10Nm -VAG1783-
- Adhesive Strip Remover -VAS6349-

Install in reverse order of removal.



#### Note

- New screws are to be used when installing the glass panel.
- When removing the screws, use a magnetic tool so that the screws cannot fall into the guide for the panorama sunroof mechanism.
- Install the glass panel from the top into the roof.
- Gently pull the inner seal -3- inward at the marked locations -arrow- and install the screws -2-, but do not tighten them.
- Adjust the rear glass panel, refer to
   → Chapter "Front and Rear Glass Panel Height, Adjusting".
- After the rear glass panel is adjusted, tighten the screws to 5 Nm.
- After completing all work, perform an adaptation of the sunroof motor, refer to
   → Chapter "Panorama Sunroof Basic Setting".



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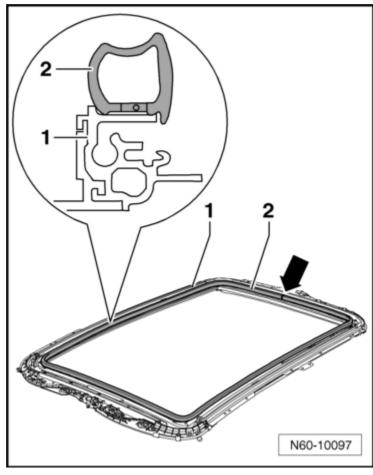
Official license plate: Final drive code:

User name: - Service advisor - name:

# Inner Seal, Replacing

 Remove the front glass sunroof panel, refer to → Chapter "Glass Panel".

- Remove the rear glass sunroof panel, refer to → Chapter "Rear Glass Panel".
- Remove the inner seal -2- from the assembly frame -1-.
- Remove any adhesive residue using Adhesive Strip Remover - VAS6349-.
- Make sure there is no dust or grease on the adhesive surface.
- Clean the adhesive surface thoroughly with Cleaning Solution -D 009 401 04-.
- Wipe the adhesive surface on the assembly frame using the primer towel supplied.
- Place the inner seal -2- in the center of the rear roof opening on the adhesive side of the assembly frame -1-.
- Remove the protective foil from the adhesive tape on the inner seal in sections and press it on.
- Press seal on evenly to prevent any excess length.
- Press the inner seal down using the Roller - 3356- two times evenly all around.
- Install the rear glass sunroof panel, refer to → Chapter "Rear Glass Panel".
- Install the front glass sunroof panel, refer to → Chapter "Glass Panel".



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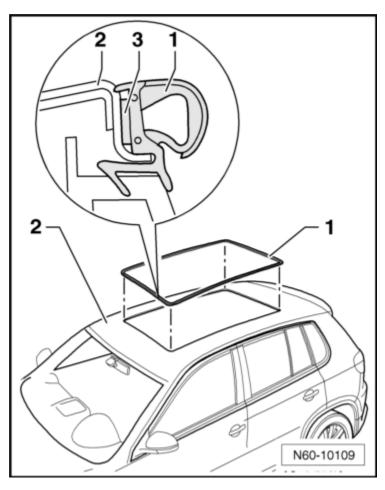
Official license plate: Final drive code:

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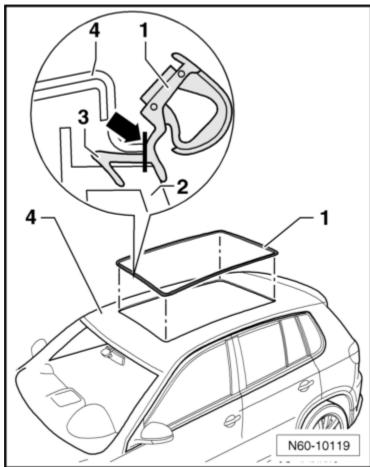
# Outer Seal, Replacing and Installing

### Special tools and workshop equipment required

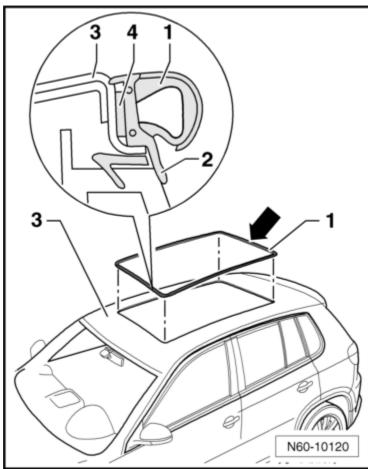
- ♦ Roller -3356-
- ◆ Torque Wrench 1783 2-10Nm -VAG1783-
- ♦ Adhesive Strip Remover -VAS6349-
- Remove the front glass sunroof panel, refer to → Chapter "Glass Panel".
- Remove the rear glass sunroof panel, refer to → Chapter "Rear Glass Panel".
- Remove the outer seal -1- with the adhesive surface -3- from the roof -2-.



- Cut the profile of the outer seal -1- in the area -arrow- flush to the roof edge -4- all the way around.
- The remainder -3- stays between the roof -4- and the assembly frame -2-.
- Remove any adhesive residue using Adhesive Strip Remover - VAS6349-.
- The adhesion surface on the roof cutout must be free of dust and grease.
- Clean the adhesive surface thoroughly with Cleaning Solution -D 009 401 04-.
- Wipe the adhesive surface on the roof cutout using the primer towel supplied.
- Always pay attention to the drying time for the primer towel supplied.



- Center the new outer seal -1- so that the joint -arrow- is at the center of the rear roof opening.
- Remove the protective film from the adhesive tape -4- on the new outer seal -1- and press the seal onto the roof -3-.
- Press the seal on evenly so that it does not stretch and become too long.
- Press the outer seal down using the Roller - 3356- two times evenly all around.
- Install the rear glass sunroof panel, refer to → Chapter "Rear Glass Panel".
- Install the front glass sunroof panel, refer to → Chapter "Glass Panel".



Repair manual ElsaPro Job number: 121312

DMS order number:

VIN: - Model Year: 2012

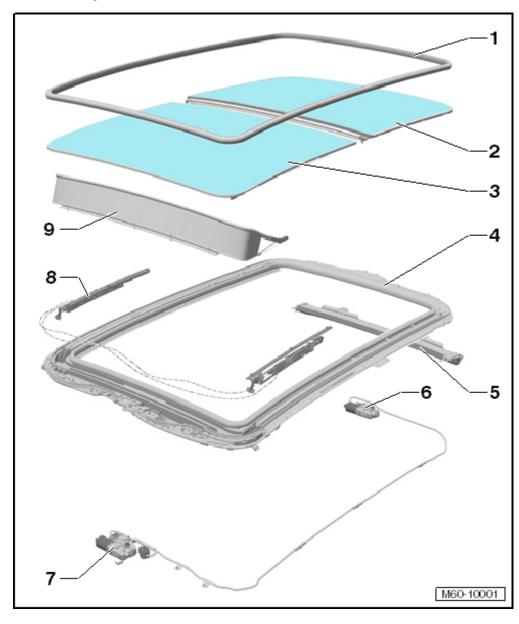
Sales code: AJ53S3 Model description: Wagon 2.5 Comfo 125 A6F

Engine code: CBUA Transmission code: MAN

Official license plate: Final drive code:

User name: Service advisor - name:

# **Panorama Sunroof Assembly Overview**



#### 1 - Outer Seal

□ Replacing. Refer to → Chapter "Outer Seal".

#### 2 - Rear Glass Panel

- □ Removing and Installing. Refer to → Chapter "Rear Glass Panel".
- □ Adjusting. Refer to → Chapter "Front and Rear Glass Panel Height, Adjusting".

#### 3 - Front Glass Panel

- □ Removing and Installing. Refer to → Chapter "Glass Panel".
- □ Adjusting. Refer to → Chapter "Front and Rear Glass Panel Height, Adjusting".

### 4 - Assembly Frame

- □ Assembly Overview. Refer to → Chapter "Assembly Frame Assembly Overview".
- □ Removing and Installing. Refer to → Chapter "Assembly Frame".

#### 5 - Sun Shade

□ Removing and Installing. Refer to → Chapter "Sun Shade".

#### 6 - Sunshade Motor

- □ Removing and Installing. Refer to → Chapter "Sun Shade Motor".
- □ Adaptation → Chapter "Adaptation Panorama Sunroof"

#### 7 - Sunroof Motor

- □ Removing and Installing. Refer to → Chapter "Sunroof Motor".
- □ Adaptation → Chapter "Adaptation Panorama Sunroof"

#### 8 - Tilting Mechanism

□ Removing and Installing. Refer to → Chapter "Front Sunroof Glass Panel Tilt Mechanism and Cable".

#### 9 - Wind Deflector

□ Removing and Installing. Refer to → Chapter "Wind Deflector".

Assembly Frame Page 1 of 5

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ElsaPro Job number: 121312 Repair manual

DMS order number:

VIN: -Model Year: 2012

Sales code: AJ53S3 Model description: Wagon 2.5 Comfo 125 A6F

Engine code: CBUA Transmission code: MAN

Official license plate: Final drive code:

User name: Service advisor - name:

# **Assembly Frame**

#### Removing



At least two technicians are needed for removing and installing the assembly frame.

Remove the headliner. Refer to

 $\rightarrow$  Rep. Gr.70.

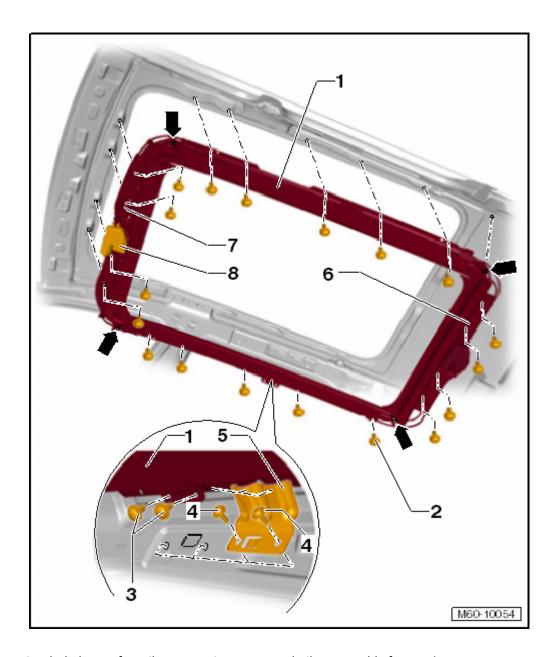
### Vehicles with Screen Separator Wall:

- Remove the screen separator bracket. Refer to  $\rightarrow$  Rep. Gr.68.

#### All Vehicles:

- Remove the grab handle bracket. Refer to
  - $\rightarrow$  Rep. Gr.68.

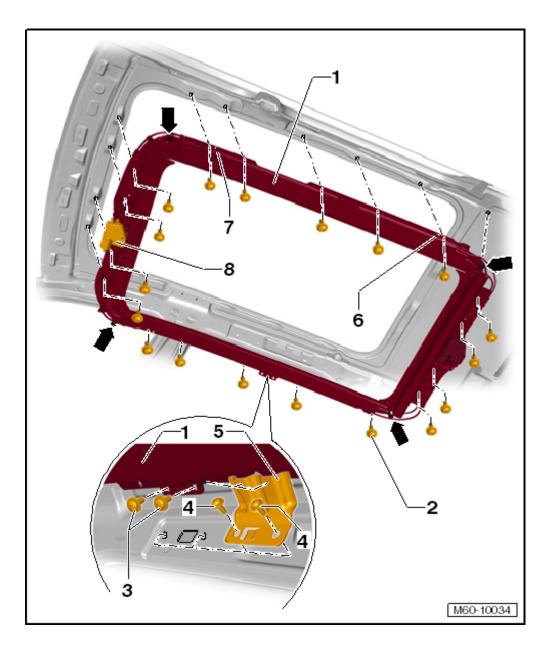
Assembly Frame Page 2 of 5



- Disconnect the water drain hoses from the connectors -arrows- in the assembly frame -1-.
- Disconnect the electrical connector leading to the harness from the sun roof motor -8-.
- Remove the bolts -3- and -4- for the bracket -5- and remove the left and right brackets.
- Remove the bolts -2- from the assembly frame -1- and remove the assembly frame from the vehicle with the help of a least one more technician.

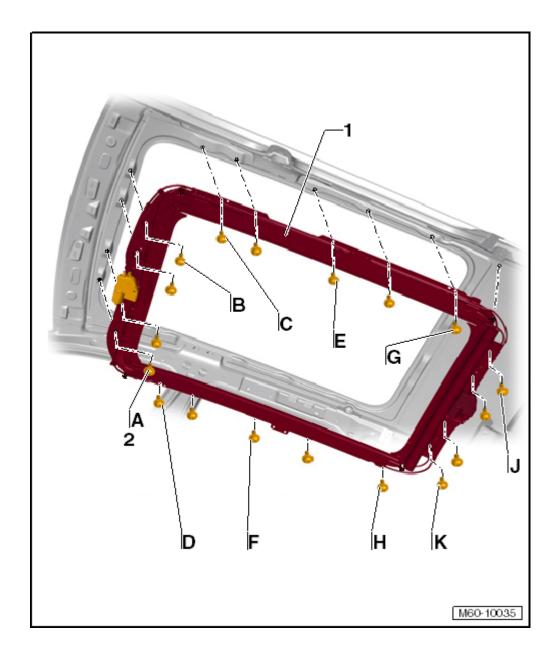
# Installing

Assembly Frame Page 3 of 5



- If necessary, install a new inner seal. Refer to → Chapter "Inner Seal, Replacing".
- If necessary, install a new outer seal. Refer to → Chapter "Outer Seal".
- Lift the assembly frame -1- into the vehicle with a second technician.
- Align the assembly frame by using 2 cylindrical pins (reversed drill bit 8 mm) on the roof centering holes
   -6- and -7- .
- Install the screws -2-, but do not tighten yet.
- Tighten bolts -3-, tightening specification: 8 Nm.
- Tighten bolts -4-, tightening specification: 4.5 Nm.

Assembly Frame Page 4 of 5



- First tighten the bolts identified with letters -2- in alphabetical order to 8 Nm.
- Tighten the remaining bolts -2- on the assembly frame -1- to 8 Nm.

Install in reverse order of removal.

# Vehicles with Screen Separator Wall:

Install the screen separator bracket. Refer to
 → Rep. Gr.68.

# All Vehicles:

- Install the grab handle bracket. Refer to

   → Rep. Gr.68.
- Install headliner. Refer to
   → Rep. Gr.70.

Assembly Frame Page 5 of 5

Tightening Specifications		
Bracket bolt -3-	8 Nm	
Bracket bolt -4-	4.5 Nm	

Glass Panel Page 1 of 3

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Repair manual ElsaPro Job number: 121312

DMS order number:

Official license plate:

VIN: - Model Year: **2012** 

Sales code: AJ53S3 Model description: Wagon 2.5 Comfo 125 A6F

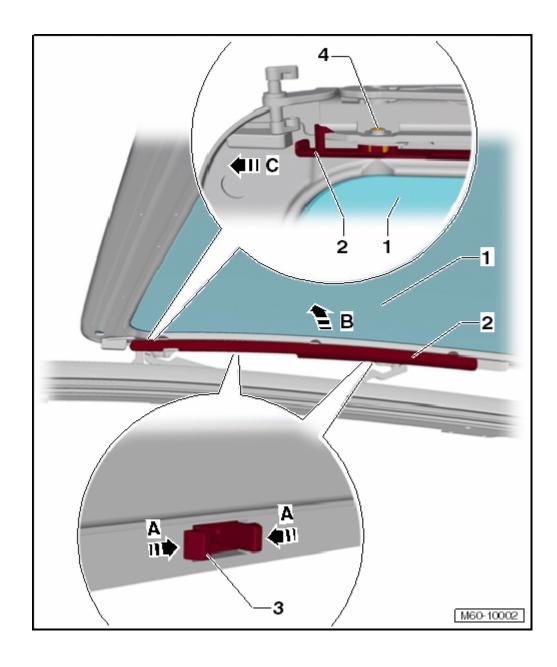
Engine code: CBUA Transmission code: MAN

Final drive code:

User name: Service advisor - name:

# **Glass Panel**

# Removing



Glass Panel Page 2 of 3

- Open the glass panel -1- until the trim -2- is accessible.
- Engage the retaining tabs -3- by pressing on the back side in the direction of -arrow A-.
- Remove the trim -2- downward in the rear area in the direction of -arrow B- inward and from the bolt -4-.
- Slide the trim forward in the direction of -arrow C- and remove it.
- Remove the left and right bolts -2- from the glass sunroof panel -1-.



#### Note

When removing the bolts, use a magnetic tool so that the bolts cannot fall into the sunroof mechanism.

Remove the glass sunroof panel upward.



#### Caution

Do not try to use the tilt feature when the glass sunroof panel is not installed, otherwise the wind deflector could be damaged (scratched).

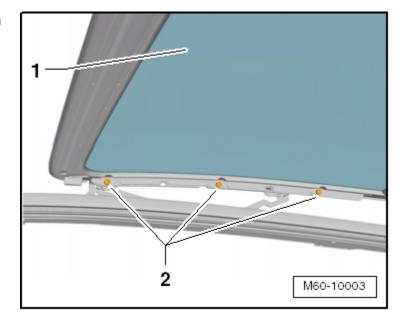
# 

# Installing



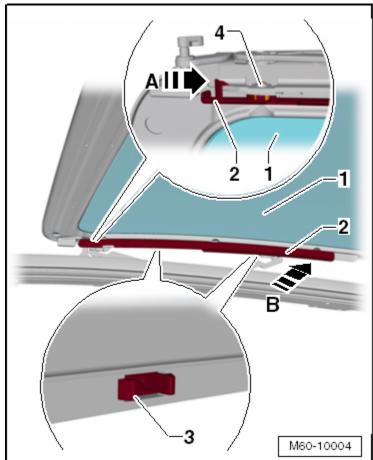
#### Note

- Always use new bolts when installing or removing the glass sunroof panel.
- When installing the bolts, use a magnetic tool so that the bolts cannot fall into the sunroof mechanism.
- Insert the glass sunroof panel -1- from the top and install the bolts -2- but do not tighten them.
- Install the front glass sunroof panel.
   Refer to → Chapter "Front and Rear Glass Panel Height, Adjusting"
- Tighten the bolts -2- to 5 Nm.



Glass Panel Page 3 of 3

- Engage the front of the trim -2- in the glass panel -1--arrow A-.
- Press the trim in the direction of the arrow B- onto the bolt -4- and clip the retaining tabs -3- in on the rear side.
- After completing all the work, perform an sunroof motor adaptation. Refer to
   → Chapter "Adaptation Panorama Sunroof".



Tightening Specifications			
Sunroof bolt	5 Nm		

Rear Glass Panel Page 1 of 3

# Copyright VW AG

Repair manual ElsaPro Job number: 121312

DMS order number:

VIN: - Model Year: 2012

Sales code: AJ53S3 Model description: Wagon 2.5 Comfo 125 A6F

Engine code: CBUA Transmission code: MAN

Official license plate: Final drive code:

User name: - Service advisor - name:

# **Rear Glass Panel**

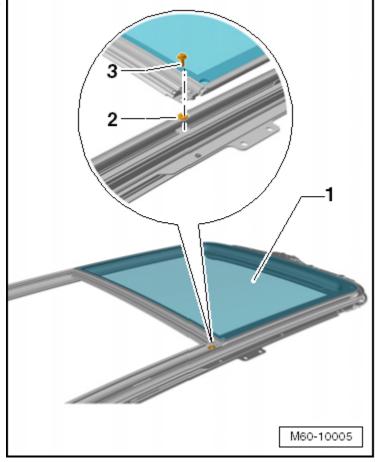
#### Removing



## Note

When removing the bolts, use a magnetic tool so that the bolts cannot fall into the sunroof mechanism.

- Open the front glass roof panel completely by pressing the rotary switch past the comfort setting.
- Remove the rear glass sunroof panel -1screws -3- .
- Remove the spacer -2- under the attachment surface.
- Move the front glass sunroof panel into the "tilted" position.



Rear Glass Panel Page 2 of 3

- Pull the inner seal -3- slightly where shown -arrow- and remove the screws -2-.
- Remove the rear glass sunroof panel -1upward.

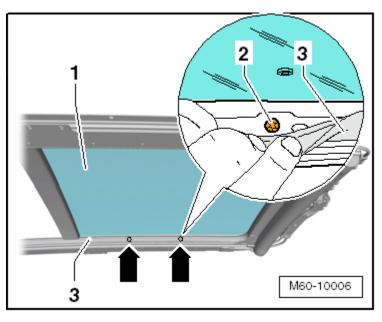
# Installing

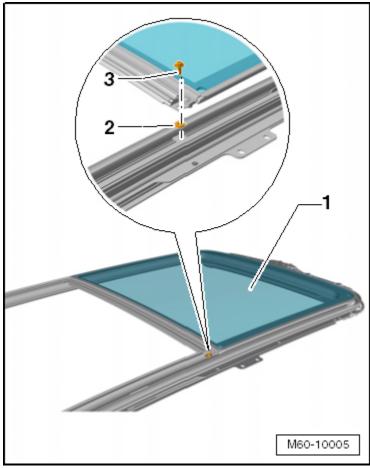
Install in reverse order of removal.



#### Note

- Always use new bolts when installing or removing the glass sunroof panel.
- When installing the bolts, use a magnetic tool so that the bolts cannot fall into the sunroof mechanism.
- Insert the glass sunroof panel into the roof from the top.
- Install the spacer -2- and tighten the bolt
   -3- (5 Nm).

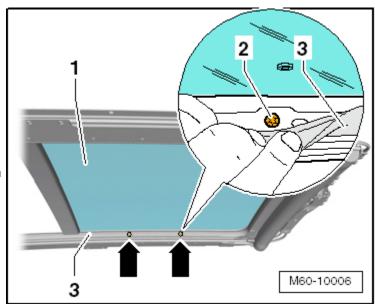




Rear Glass Panel Page 3 of 3

 Pull the inner seal -3- slightly where shown -arrow- and install the bolts -2but do not tighten them.

- Install the rear glass sunroof panel.
   Refer to → Chapter "Front and Rear Glass Panel Height, Adjusting"
- Tighten the bolts to 5 Nm after adjusting the rear glass sunroof panel.
- After completing all the work, perform an sunroof motor adaptation. Refer to
   → Chapter "Adaptation Panorama Sunroof".



Tightening Specifications		
Rear sunroof glass panel bolt	5 Nm	

#### Copyright VW AG

Repair manual ElsaPro Job number: 121312

DMS order number:

VIN: - Model Year: 2012

Sales code: AJ53S3 Model description: Wagon 2.5 Comfo 125 A6F

Engine code: CBUA Transmission code: MAN

Official license plate: Final drive code:

User name: - Service advisor - name:

# Inner Seal, Replacing

 Remove the front glass sunroof panel. Refer to → Chapter "Glass Panel".

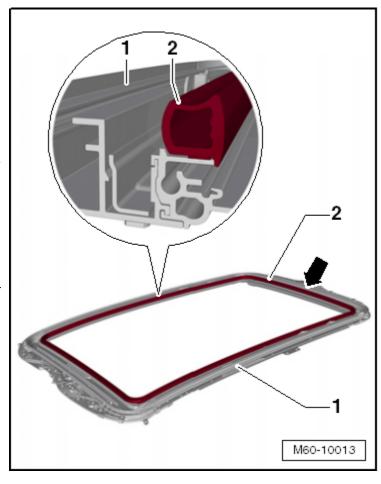
- Remove the rear glass sunroof panel. Refer to → Chapter "Rear Glass Panel".
- Remove the inner seal -2- from the assembly frame -1-.
- Remove any adhesive residue with Adhesive Remover -VAS 6349-.
- Make sure there is no dust or grease on the adhesive surface.
- Clean adhesion surface thoroughly using Cleaning Solution -D 009 401 04-.



#### Note

In order for the seal to be effective, do not use in temperatures under 68 °F (20 °C).

- Place the new inner seal -2- in the center of the rear roof opening on the adhesive side of the assembly frame -1-
- Remove the protective foil from the adhesive tape on the inner seal in sections and press it on.
- The seal should not be pulled in the curved areas for any reason as the seal will bulge easily.
- Press the inner seal using Roller -3356two times evenly all around,
- Install the rear glass sunroof panel.
   Refer to → Chapter "Rear Glass Panel"
- Install the front glass sunroof panel.
   Refer to → Chapter "Glass Panel"



Outer Seal Page 1 of 3

# Copyright VW AG

Repair manual ElsaPro Job number: 121312

DMS order number:

VIN: - Model Year: 2012

Sales code: AJ53S3 Model description: Wagon 2.5 Comfo 125 A6F

Engine code: CBUA Transmission code: MAN

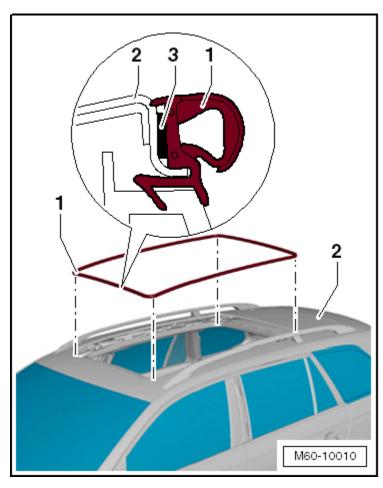
Official license plate: Final drive code:

User name: - Service advisor - name:

# **Outer Seal**

 Remove the front glass sunroof panel. Refer to → Chapter "Glass Panel".

- Remove the rear glass sunroof panel. Refer to → Chapter "Rear Glass Panel".
- Remove the outer seal -1- in the adhesion area -3- from the roof -2-.



Outer Seal Page 2 of 3

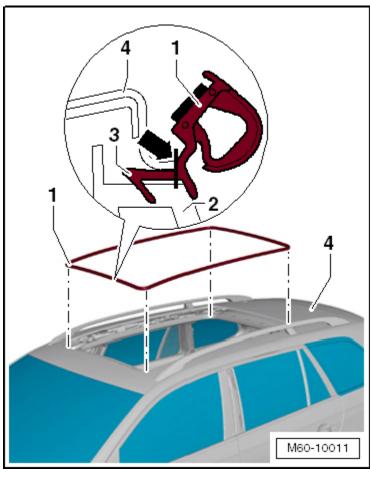
 Cut the profile of the outer seal -1- in the area -arrow- flush to the roof edge -4- all the way around.

- The remainder -3- stays between the roof -4- and the assembly frame -2-.
- Remove any adhesive residue with Adhesive Remover -VAS 6349-.
- The adhesion surface on the roof cutout must be free of dust and grease.
- Clean adhesion surface thoroughly using Cleaning Solution -D 009 401 04-.



# Note

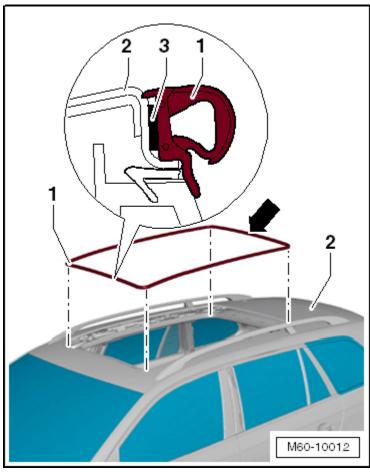
- ◆ The seal is supplied with excess length. Cut the new seal to the necessary length. It is recommended to leave the seal 1 - 2 mm longer than necessary so that it can be stretched during installation.
- In order for the seal to be effective, do not use in temperatures under 68 °F (20 °C).
- Install the glass panel 30 minutes after the bonding the outer seal so that the seal does not come loose again.



Outer Seal Page 3 of 3

 Center the new outer seal -1- so that the joint -arrow- is at the center of the rear roof opening.

- Remove the protective film from the adhesive tape -3- on the new outer seal -1- and press the seal onto the roof -3-.
- The seal should not be pulled in the curved areas for any reason as the seal will bulge easily.
- Press the outer seal down using the Roller -3356- two times evenly all around.
- Install the rear glass sunroof panel.
   Refer to → Chapter "Rear Glass Panel"
- Install the front glass sunroof panel.
   Refer to → Chapter "Glass Panel"



# EA14-002 VOLKSWAGEN 8/24/2014 EXHIBIT TO REQUEST 8 REQUEST NUMBER 8 DATA

# Response to question 8

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Panel 1	2-piece)	•		automatic, 1-piece		automatic, 1-piece				
g. Size of panel(s) (length x width in centification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  ANSI/SAE Z26.1 certification marking and interpretation is the lower weight of toughened glazing, which has a higher mechanical strength when compared to laminated glazing. A reduced weight roof structure provides for a laminated glazing. A reduced weight roof structure provides for a laminated glazing. A reduced weight roof structure provides for a laminated glazing. A reduced weight roof structure provides fo	f. Location of glass panel(s)					l .				
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Weight of glass panel(s) (kilograms)   8.28   8.48   7.4   5.8   7.39   5.8     Type of glass used as classified in ANSI/SAE Z6.1 (e. Iaminated, tempered Glass (according to (accordi	g. Size of panel(s) (length x width in centimeters)	68,9 x 96,5	72,7x 93,6	69 x 84,7	64,3 x 82,9	68,9 x 84,7	64,4 x 82,9			
in Type of glass used as classified in ANSI/SAE Z26.1 (i.e. laminated, tempered, Glass (according to ANSI) ANSI)  K. Certified to ANSI/SAE Z26.1, Item 3/4 (Glazing Material Standard' (specify all applicable Table 1 Tests)  K. Certified to ANSI/SAE Z26.1, Item 3/4 (Glazing Material Standard' (specify all applicable Table 1 Tests)  FMVSS 205 FMVS	h. Thickness of glass panel(s) (millimeters)	5,0mm	5,0mm	5,0mm	5,0mm	5,0mm	5,0mm			
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ANSI/SAE Z26.1 (i.e. laminated, tempered, tempered, tempered-laminated, etc.)  K. Certified to ANSI/SAE Z26.1, Item 3/4 (Glazing Material Standard (specify all applicable Table 1 Tests)  FMVSS 205  FMVS 205  FMVSS 205  FMVS 205  FMVSS 205  FM	i Type of glass used as classified in	-		•						
tempered-laminated, etc.)  ANSI)  ANSI  ANSI										
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Glazing Material Standard (specify all applicable Table 1 Tests)  (Tests No. 6,7 and 8 of table 1/item 3)  I. Provide any impact test results per ANSI/SAE Z26.1 Test No. 6.14 or per other standards if available  I. Provide any impact test results per ANSI/SAE Z26.1 Test No. 6.14 or per other standards if available  DOT865 M1250 AS3  M. SSa M250	L Cortified to ANSI/SAE 726 1 Itom 2/4	FMVSS 205	FMVSS 205	FMVSS 205	FMVSS 205	FMVSS 205	FMVSS 205			
I. Provide any impact test results per ANSI/SAE Z26.1 Test No. 6-14 or per other standards if available    See Exhibit to Request 8    DOT15 M125 AS3 AS3 DOT682 M5550 AS3* M555	Glazing Material Standard (specify all applicable Table 1 Tests)	6,7 and 8 of table 1/item	and 8 of table	and 8 of table	and 8 of table	6,7 and 8 of table 1/item	6,7 and 8 of table 1/item			
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strength when compared to laminated glazing. A reduced weight roof structure provides for a lower center of gravity, thus improving vehicle driving dynamic and contributes to improved fuel efficiency.  See Exhibit to Request 80  See Exhibit to Request 80  Traving No. (for glass)  Traving No. (fo	m. ANSI/SAE Z26.1 certification marking (i.e. AS1, AS2, etc.) if any  n. Explain the reasons for selecting the type,	M1250 AS3  All Volkswage safety certifica	AS3  n vehicles equipp	AS3  ed with a panorar he design dimens	AS3  nic sunroof systemion of the panora	AS3 DOT682 M5550 AS3*  *) at SOP same certification marking as Tiguan. During production period change to DOT 15 M125  m comply with a mic sunroof sys	AS3 DOT682 M5550 AS3*  *) at SOP same certification marking as Tiguan. During production period change to DOT 15 M125			
Sunroof system  Drawing No. (for glass)  Corresponding service part number (assembly)  The string of glass / Supplier of glass	thickness and other relevant aspects of the glass used	strength when compared to laminated glazing. A reduced weight roof structure provides for a lower center of gravity, thus improving vehicle driving dynamic and contributes to improved fuel								
Drawing No. (for glass)         1724732         1724745         516714130         516714230         585714130         585714230           Corresponding service part number (assembly)         7P0 877 055         5N0 877 055         5N0 877 056         5N0 877 056 B         1K9 877 055         1K9 877 056           Supplier of glass / Supplier of panel         FUYAO /         FUYAO /         Pilkington /         Pilkington /         Pilkington /         Pilkington /	Engineering drawings of the panoramic sunroof system	See Exhibit to Request 80								
(assembly) 7P0 877 056 A 5N0 877 055 B 5N0 877 056 B 1K9 8	Drawing No. (for glass)	1724732				585714130	585714230			
Supplier of diass / Supplier of panel	Corresponding service part number (assembly)	7P0 877 055				1K9 877 055	1K9 877 056			
	Supplier of glass / Supplier of panel			_	_	_	_			