

Soumatrix speakers installation guide

Preface

- ◆ *Soumatrix coaxial speakers combine bass and treble loudspeaker in one unit.
Just replace the car original bass loudspeakers in each of the front and rear doors.*
- ◆ *Please disconnect the car original treble loudspeaker to disable it.*
- ◆ *If the car equipped the amplifier and subwoofer originally,
please keep them and work together with Soumatrix speakers.
You just adjust the balance or equalizer to fit your own preference.
Soumatrix speakers will give you better room-acoustic feeling.*
- ◆ *This manual quoted some part of VW repair manual group
“Communication” and “General body repairs, interior”.
Please ignore some irrelevant sentences .*

2.1 Overview - Sound system

⇒ “Overview – sound system, 4 loudspeakers” on page 3

⇒ “Overview – sound system, 6 loudspeakers” on page 4

⇒ “Overview – sound system, 8 loudspeakers” on page 5

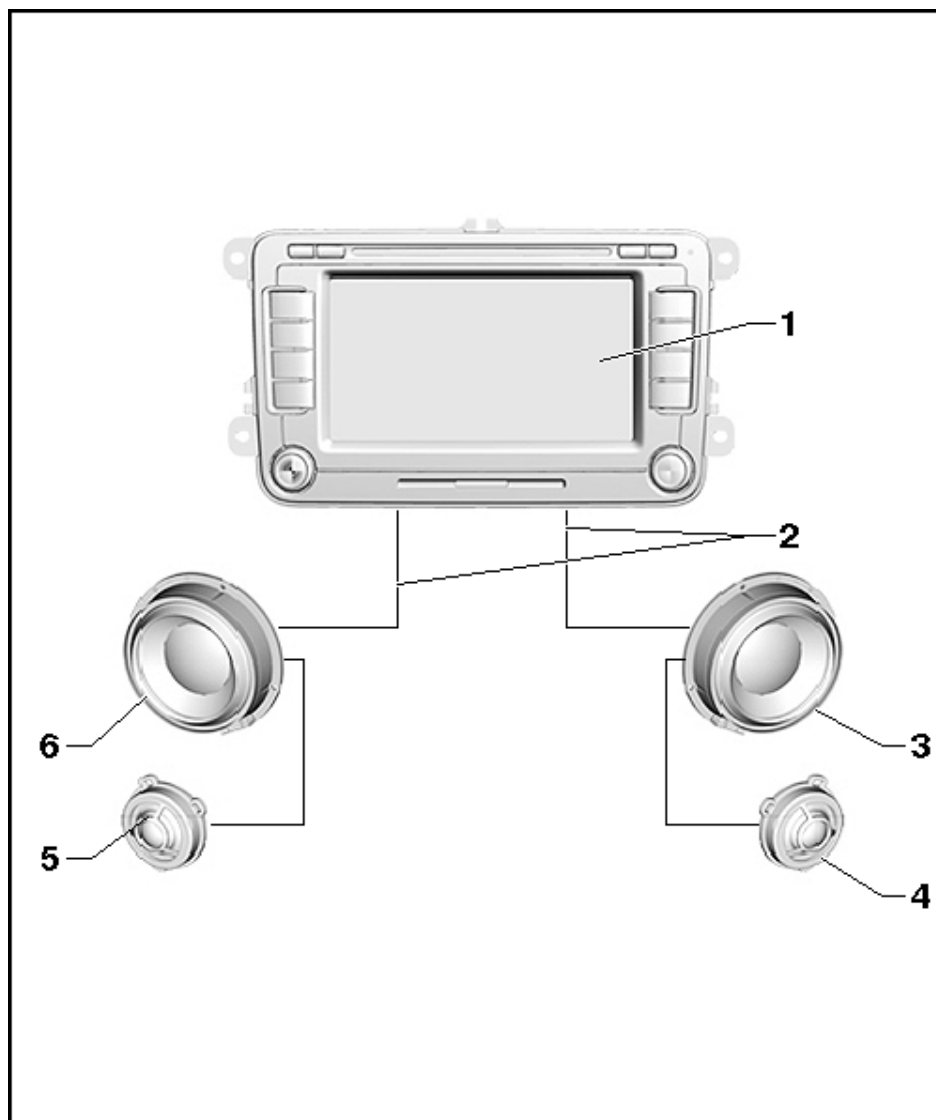
⇒ “Overview – sound system, Volkswagen Sound” on page 6

⇒ “Overview – sound system, Branded Sound” on page 7

2.1.1 Overview – sound system, 4 loudspeakers

4 loudspeaker system

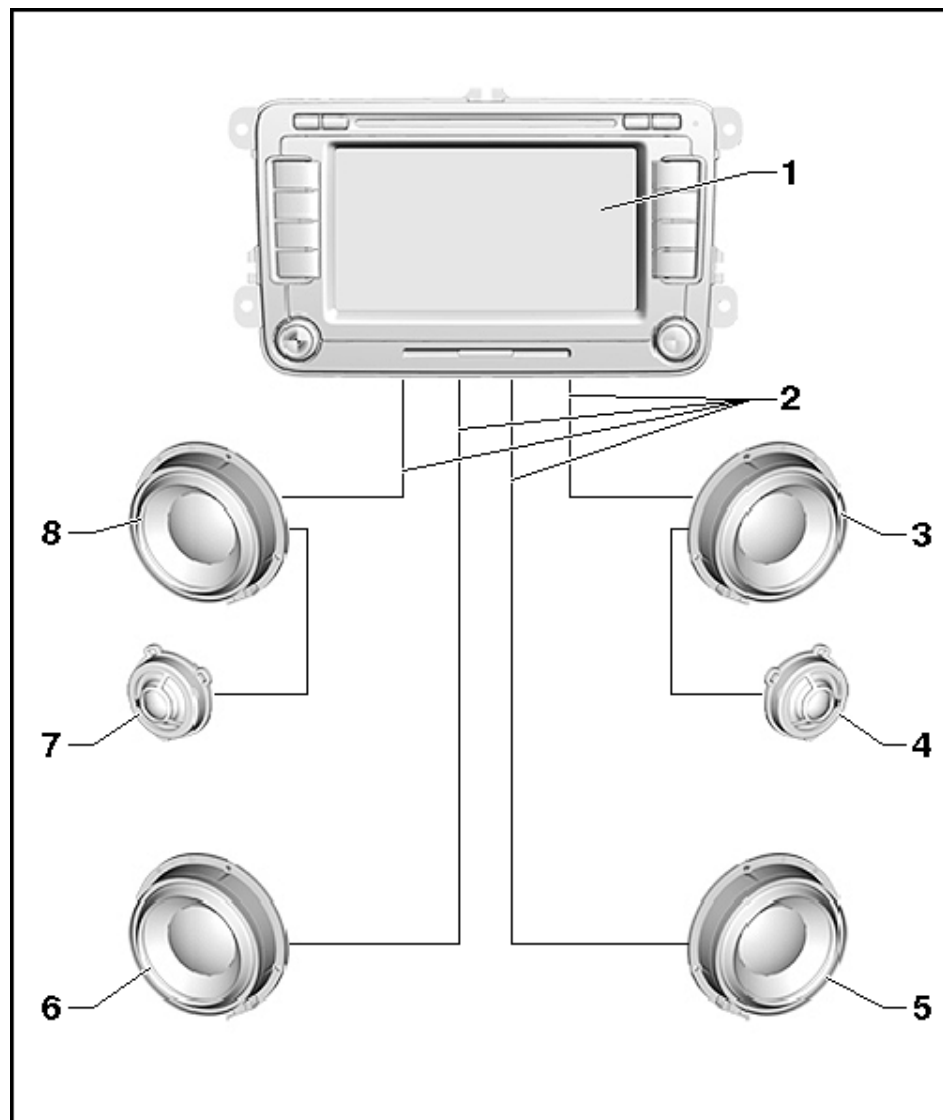
- 1 - Radio -R-
- 2 - LF wires
- 3 - Front right bass loudspeaker -R23- in front right-hand door
- 4 - Front right treble loudspeaker -R22- in right A-pillar
- 5 - Front left treble loudspeaker -R20- in left A-pillar
- 6 - Front left bass loudspeaker -R21- in front left-hand door



2.1.2 Overview – sound system, 6 loudspeakers

6 loudspeaker system

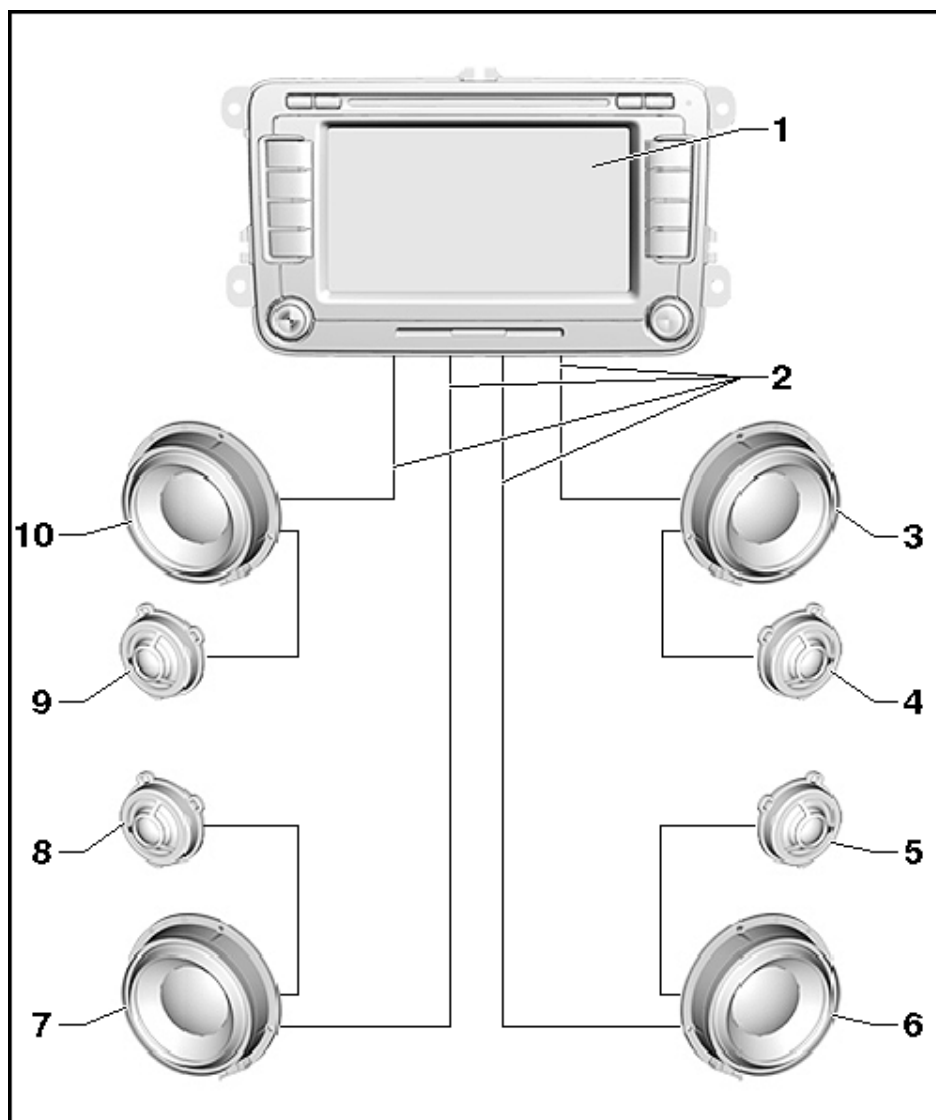
- 1 - Radio -R-
- 2 - LF wires
- 3 - Front right bass loudspeaker -R23- in front right-hand door
- 4 - Front right treble loudspeaker -R22- in right A-pillar
- 5 - Front right mid-range loudspeaker -R104- in front right door
- 6 - Front left mid-range loudspeaker -R103- in front left door
- 7 - Front left treble loudspeaker -R20- in left A-pillar
- 8 - Front left bass loudspeaker -R21- in front left-hand door



2.1.3 Overview – sound system, 8 loudspeakers

8 loudspeaker system

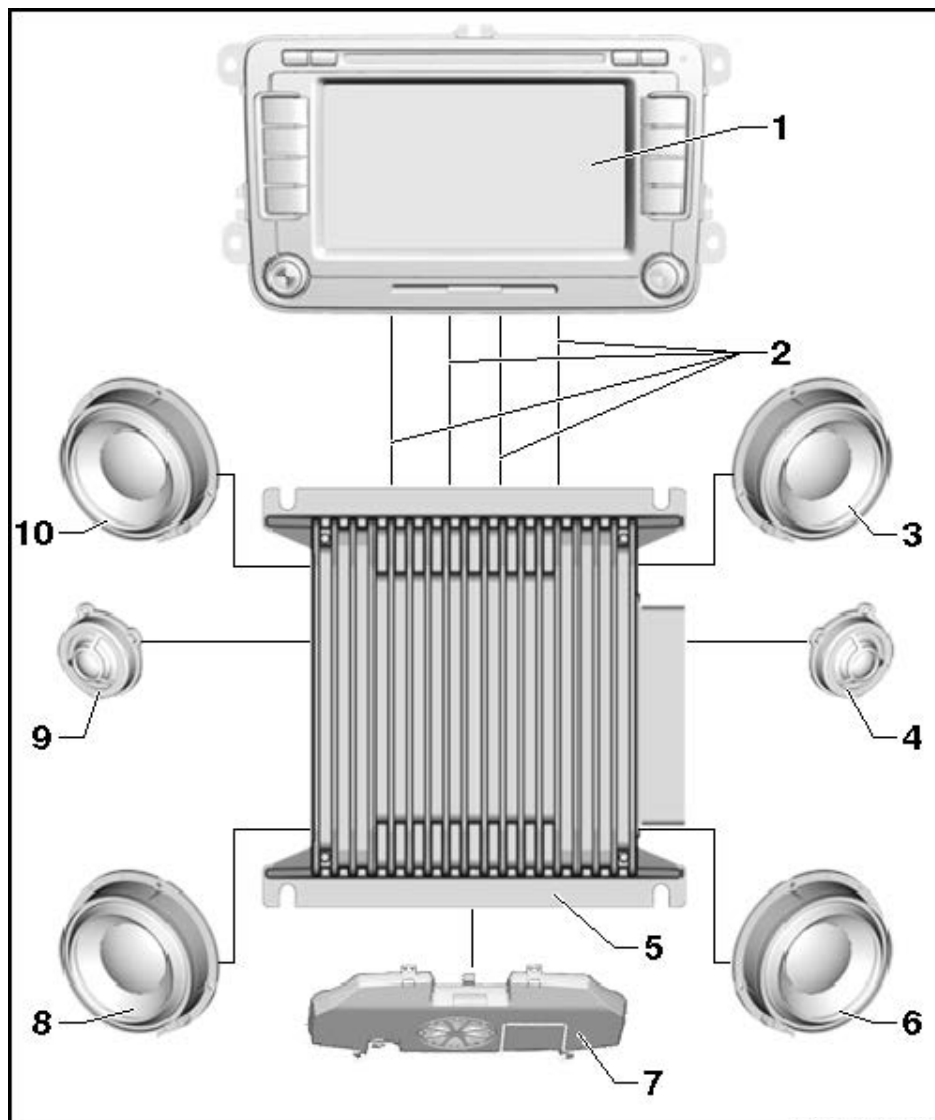
- 1 - Radio -R-
- 2 - LF wires
- 3 - Front right bass loudspeaker -R23- in front right-hand door
- 4 - Front right treble loudspeaker -R22- in right A-pillar
- 5 - Rear right treble loudspeaker -R16- in rear right door
- 6 - Rear right bass loudspeaker -R17- in rear right door
- 7 - Rear left bass loudspeaker -R15- in rear left door
- 8 - Rear left treble loudspeaker -R14- in rear left door
- 9 - Front left treble loudspeaker -R20- in left A-pillar
- 10 - Front left bass loudspeaker -R21- in front left-hand door



2.1.4 Overview – sound system, Volkswagen Sound

Volkswagen Sound

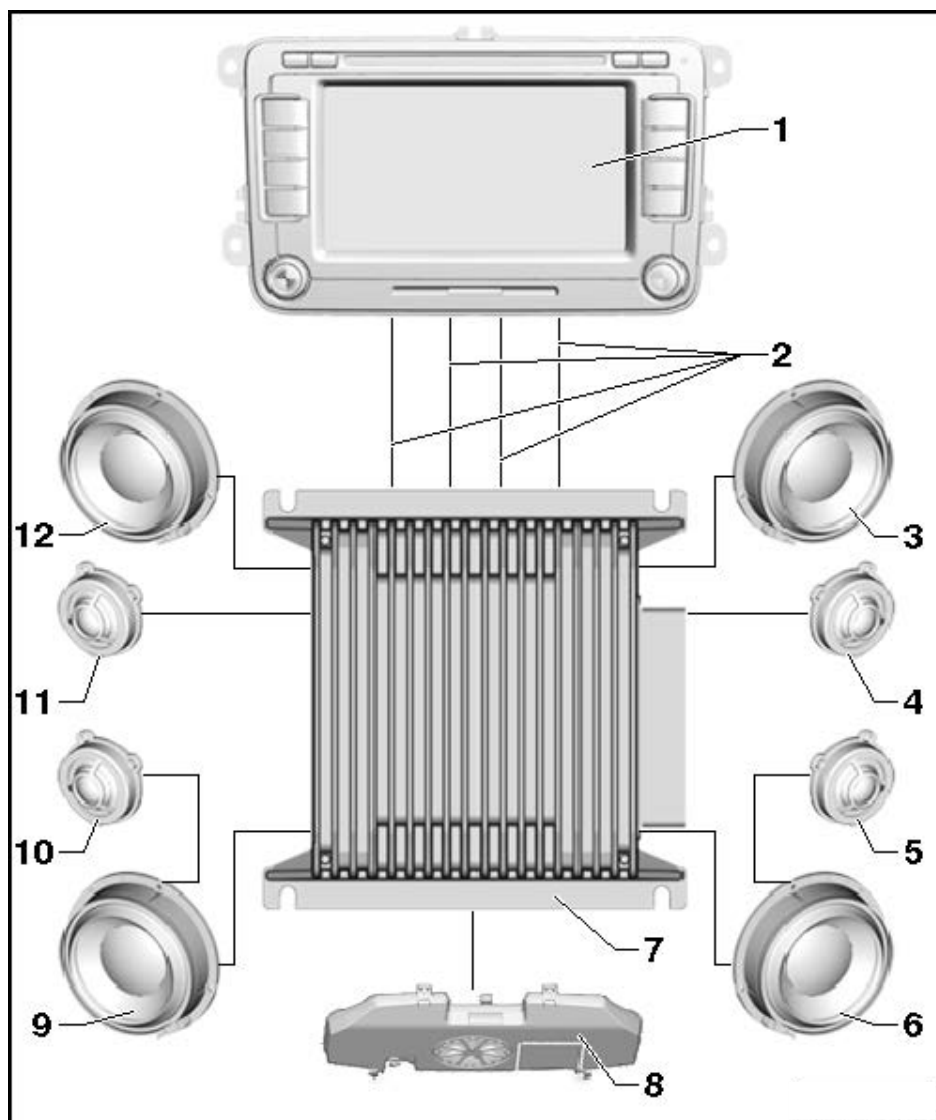
- 1 - Radio -R-
- 2 - LF wires
- 3 - Front right bass loudspeaker -R23- in front right-hand door
- 4 - Front right treble loudspeaker -R22- in right A-pillar
- 5 - Amplifier -R12- under left front seat
- 6 - Rear right bass loudspeaker -R17- in rear right door
- 7 - Subwoofe -R2 1- under rear shelf in luggage compartment
- 8 - Rear left bass loudspeaker -R15- in rear left door
- 9 - Front left treble loudspeaker -R20- in left A-pillar
- 10 - Front left bass loudspeaker -R21- in front left-hand door



2.1.5 Overview – sound system, Branded Sound

Branded Sound

- 1 - Radio -R-
- 2 - LF wires
- 3 - Front right bass loudspeaker -R23- in front right-hand door
- 4 - Front right treble loudspeaker -R22- in right A-pillar
- 5 - Rear right treble loudspeaker -R16- in rear right door
- 6 - Rear right bass loudspeaker -R17- in rear right door
- 7 - Amplifier -R12- under left front seat
- 8 - Subwoofer -R211- under rear shelf in luggage compartment
- 9 - Rear left bass loudspeaker -R15- in rear left door
- 10 - Rear left treble loudspeaker -R14- in rear left door
- 11 - Front left treble loudspeaker -R20- in left A-pillar
- 12 - Front left bass loudspeaker -R21- in front left-hand door



2.2 Overview of fitting locations – sound system

1 - Front right treble loudspeaker -R22-/ front left treble loudspeaker -R20-

- ☐ in A-pillars
- ☐ Removing and installing

2 - Radio/RNS

- ☐ Radio
- ☐ RNS

3 - Subwoofer -R211-

- ☐ Under rear shelf in luggage compartment
- ☐ Removing and installing
- ☐ Bolts: 4 Nm

4 - Rear right treble loudspeaker -R16-/rear left treble loudspeaker -R14-

- ☐ in rear doors
- ☐ Removing and installing

5 - Rear right bass loudspeaker -R17-/rear left bass loudspeaker -R15-

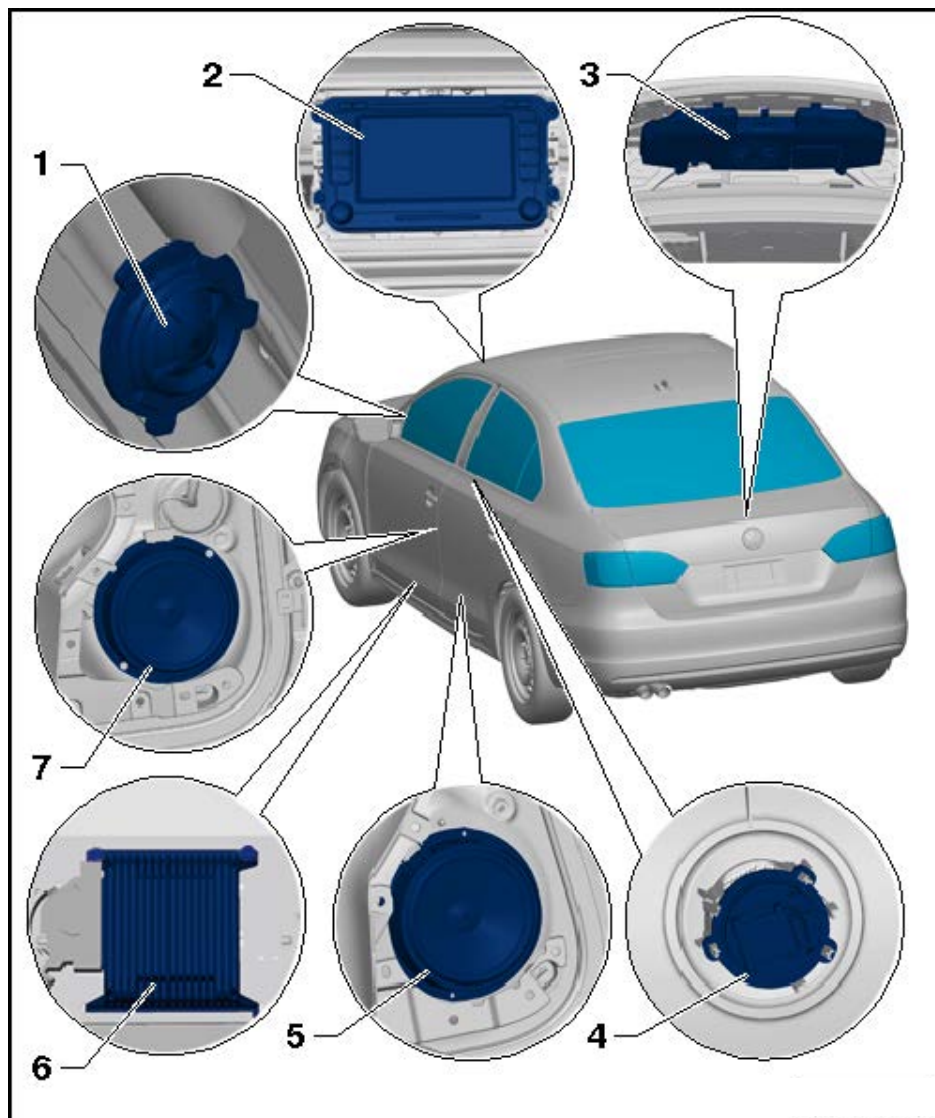
- ☐ in rear doors
- ☐ Removing and installing

6 - Amplifier -R12-

- ☐ under left front seat
- ☐ Removing and installing
- ☐ Bolts: 4 Nm

7 - Front right bass loudspeaker -R23-/front left bass loudspeaker -R21-

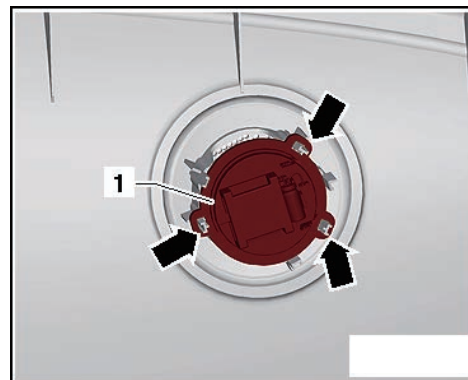
- ☐ in front doors
- ☐ Removing and installing



2.4 Disconnect rear treble loudspeakers -R14-/ -R16-

- Release connector and disconnect.

The loudspeaker -1- is permanently attached to the door trim panel at 3 points -arrows-. It can only be renewed together with the door trim panel.



2.5 Disconnect front treble loudspeakers -R20-/ -R22-

The front left treble loudspeaker -R20- and the front right treble loudspeaker -R22- are installed in the A-pillars.

Removal is performed in the same manner on the left and right sides.

The front left treble loudspeaker -R20- and front right treble loudspeaker -R22- are permanently secured to the trims of the A-pillars and cannot be renewed individually. In the event of a defect, the A-pillar trim must be replaced.

Note

Note trim colour number when ordering spare part.

Removing

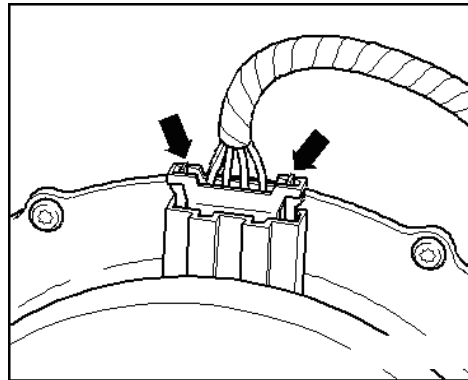
- Switch off ignition and all electrical loads, and pull out ignition key.
- Remove A-pillar trim ⇒ General body repairs, interior; Rep. gr. 70; Interior trims; Assembly overview - A-pillar trim.
- Release and separate connector -arrow- on A-pillar.



2.6 Removing the car original bass loudspeakers and installing Soumatrix speakers

Removal and installation is performed in the same manner on the left and right sides.

- Release connector -arrows-) and disconnect.



- Drill out rivets -1- using a suitable drill bit, and remove loud-speaker.

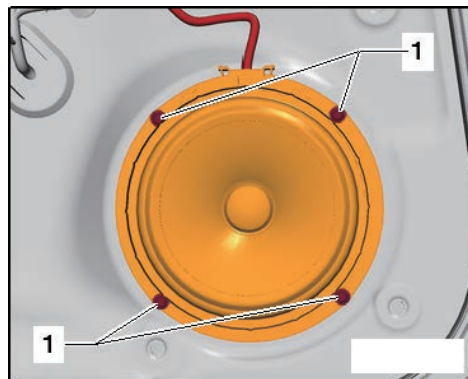
⚠ Caution

It is essential that all swarf be removed from the door because otherwise corrosion damage will occur.

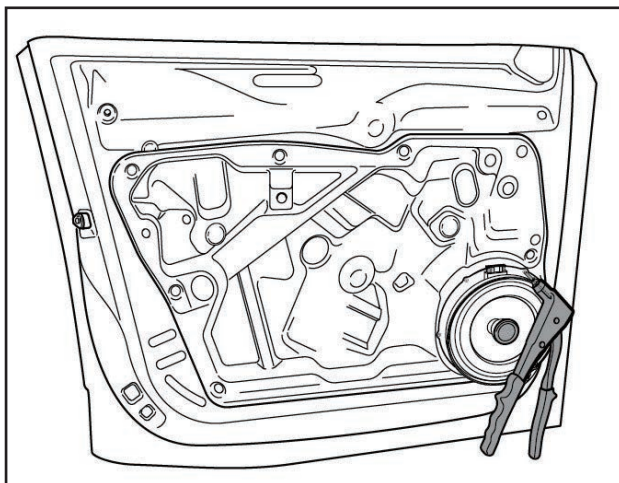
Immediately rectify any paintwork damage caused when drilling out the rivets.

Installing

- When installing the Soumatrix speakers, secure it in place with the attached rivets.

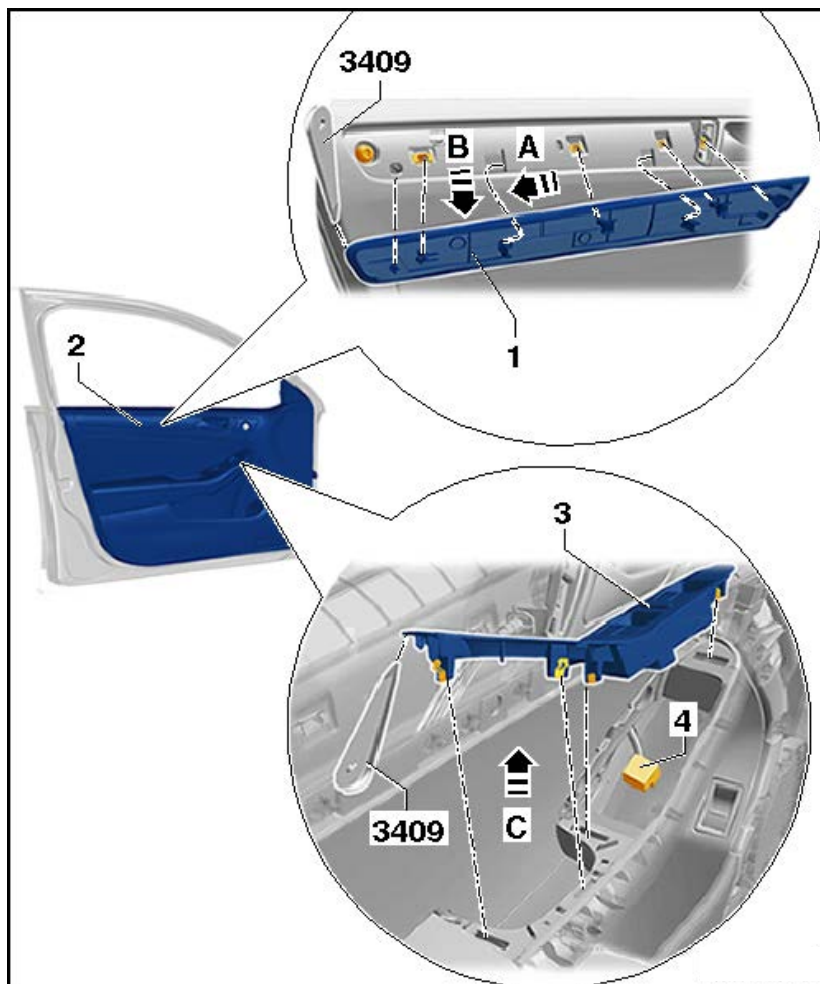


Remainder of installation is carried out in reverse order of removal.

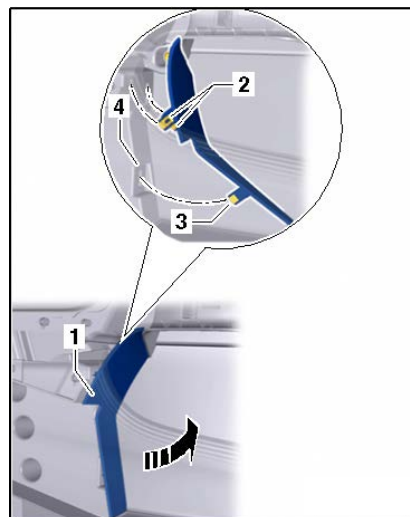


1.2 Removing and installing driver door trim

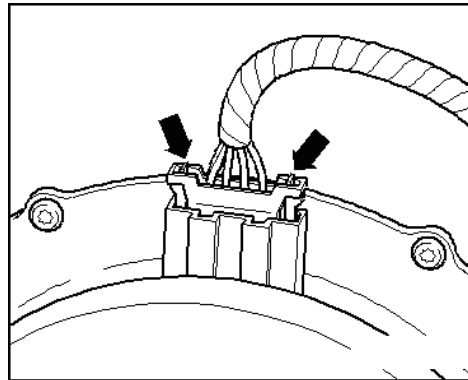
- Switch off ignition.
- Lever upper part of handle recess -3- upwards out of mountings in door trim -2- in -direction of arrow-, using the removal wedge -3409- to do so.
- Depending on the vehicle's equipment, disconnect wiring harness -4- from upper part of handle recess -3-.
- Carefully, prize trim strip -1- out of catches using removal wedge -3409-.
- Push decorative moulding -1- in -direction of arrow A- and remove from door trim -2- in -direction of arrow B-.



- Prize lower part of handle recess -1- out of catches -2- and -3- of door trim -4- in -direction of arrow-, using removal wedge -3409- to do so.



- Release connector -arrows-) and disconnect.



- Drill out rivets -1- using a suitable drill bit, and remove loud-speaker.

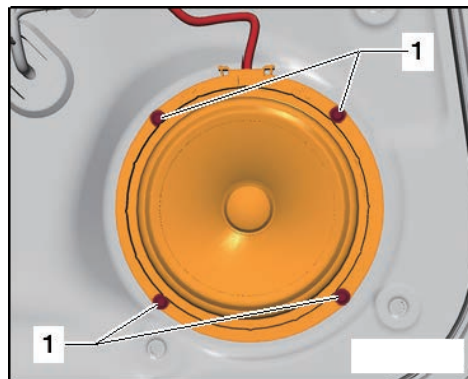
⚠ Caution

It is essential that all swarf be removed from the door because otherwise corrosion damage will occur.

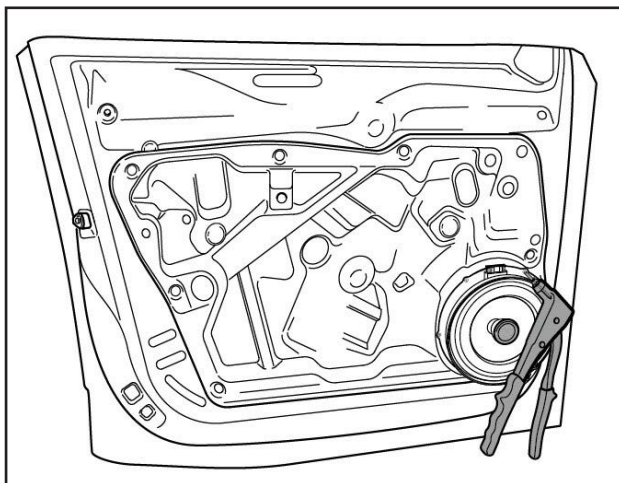
Immediately rectify any paintwork damage caused when drilling out the rivets.

Installing

- When installing the soumatrix speakers, secure it in place with the attached rivets.

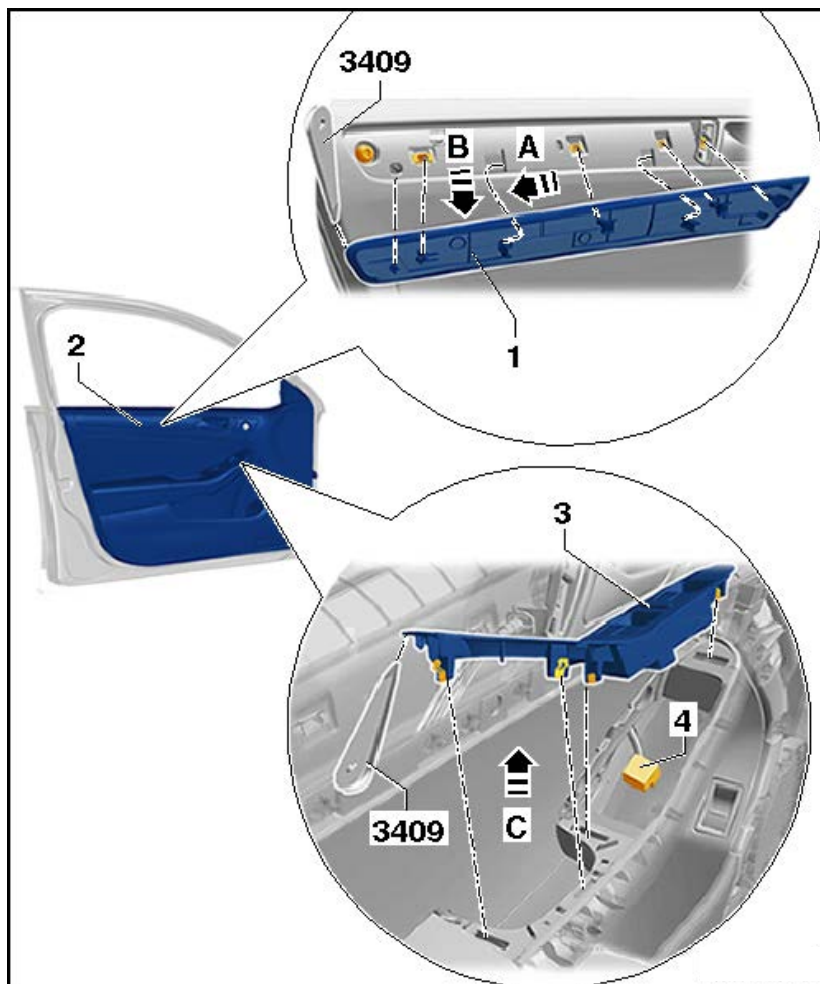


Remainder of installation is carried out in reverse order of removal.

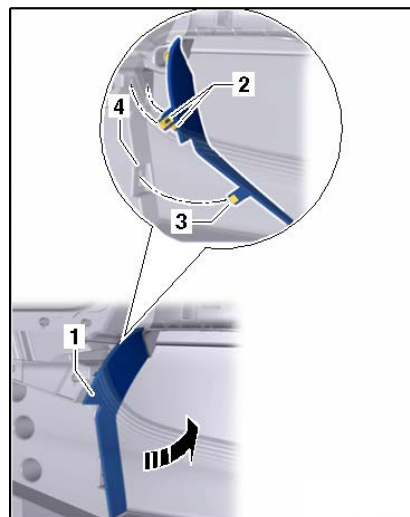


1.2 Removing and installing driver door trim

- Switch off ignition.
- Lever upper part of handle recess -3- upwards out of mountings in door trim -2- in -direction of arrow-, using the removal wedge -3409- to do so.
- Depending on the vehicle's equipment, disconnect wiring harness -4- from upper part of handle recess -3-.
- Carefully, prize trim strip -1- out of catches using removal wedge -3409-.
- Push decorative moulding -1- in -direction of arrow A- and remove from door trim -2- in -direction of arrow B-.



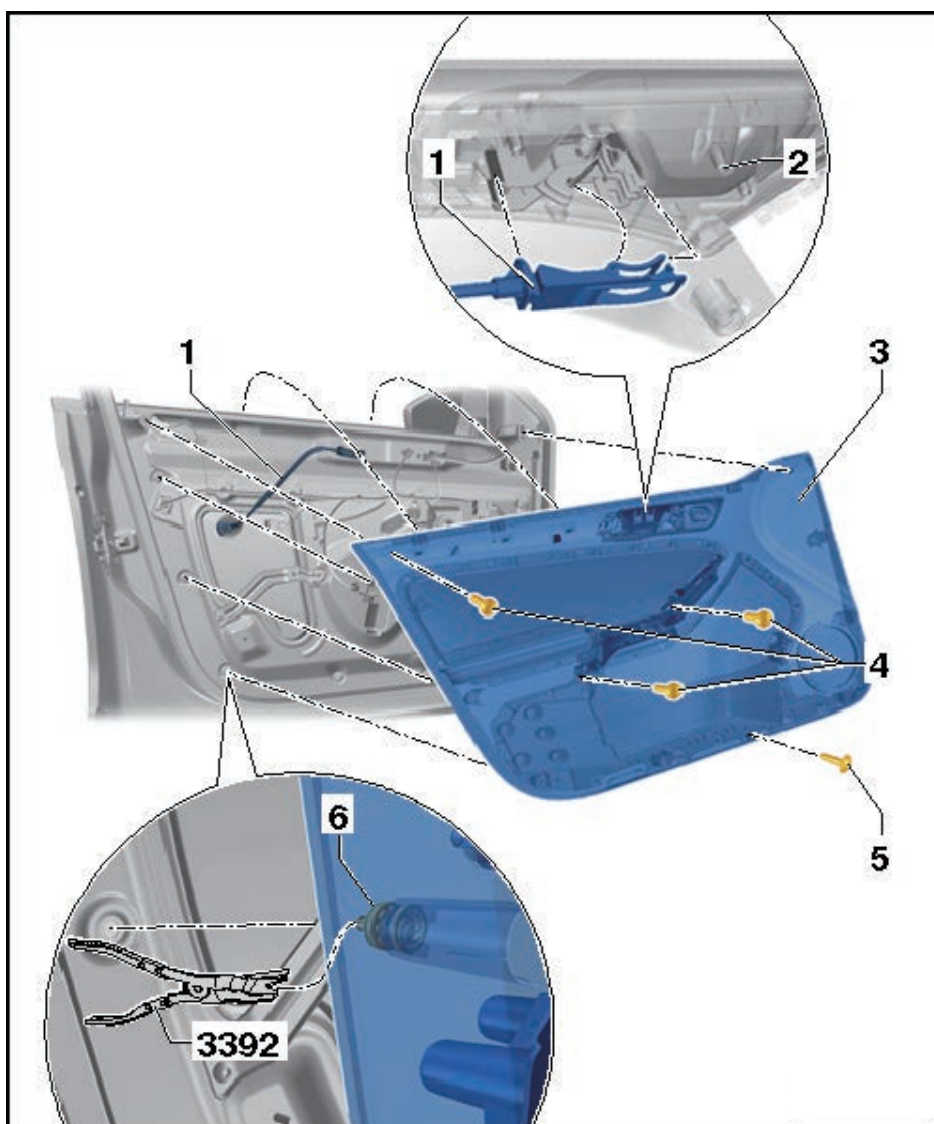
- Prize lower part of handle recess -1- out of catches -2- and -3- of door trim -4- in -direction of arrow-, using removal wedge -3409- to do so.



- Undo bolts -4- in area of handle recess and upper door trim (4 Nm).
- Remove bolt -5- (2 Nm).
- Release retaining clips -6- of door trim -3- in lower area from mountings, using wedges -T10383-.
- Release retaining clips -6- of door trim -3- at sides from mountings, using wedges -T10383-.
- Pull door trim -3- upwards vertically out of window slot seal.
- Detach Bowden cable -2- from inner door handle -1-.
- Disconnect the electrical plug-in connections from the door trim -3- in accordance with the vehicle's equipment.

Vehicles with manual mirror adjustment:

- Remove adjusting unit of exterior mirror from mounting of door trim -3-.



Installing

- Install in reverse order of removal.

Note

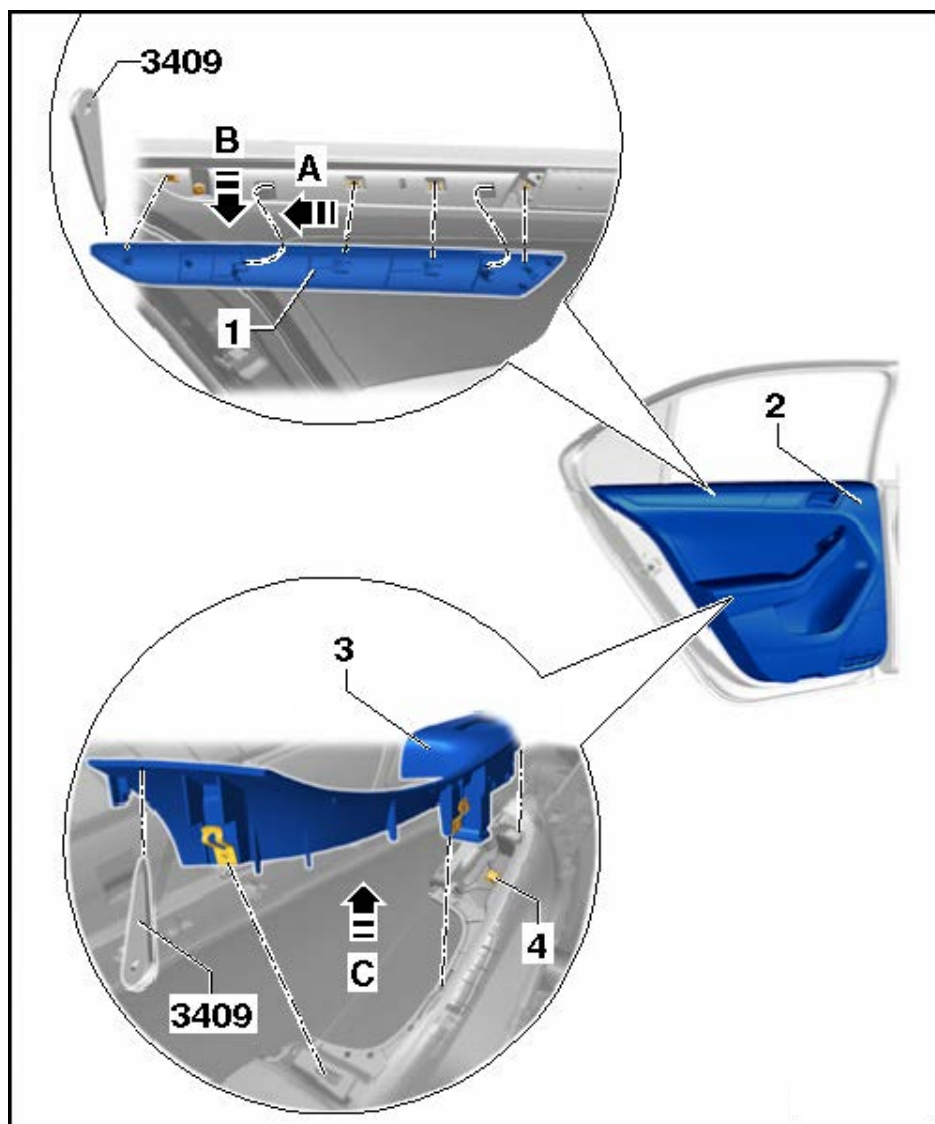
Before installing, check all fasteners for damage and renew if necessary.

1.3 Removing and installing rear door trim

Note

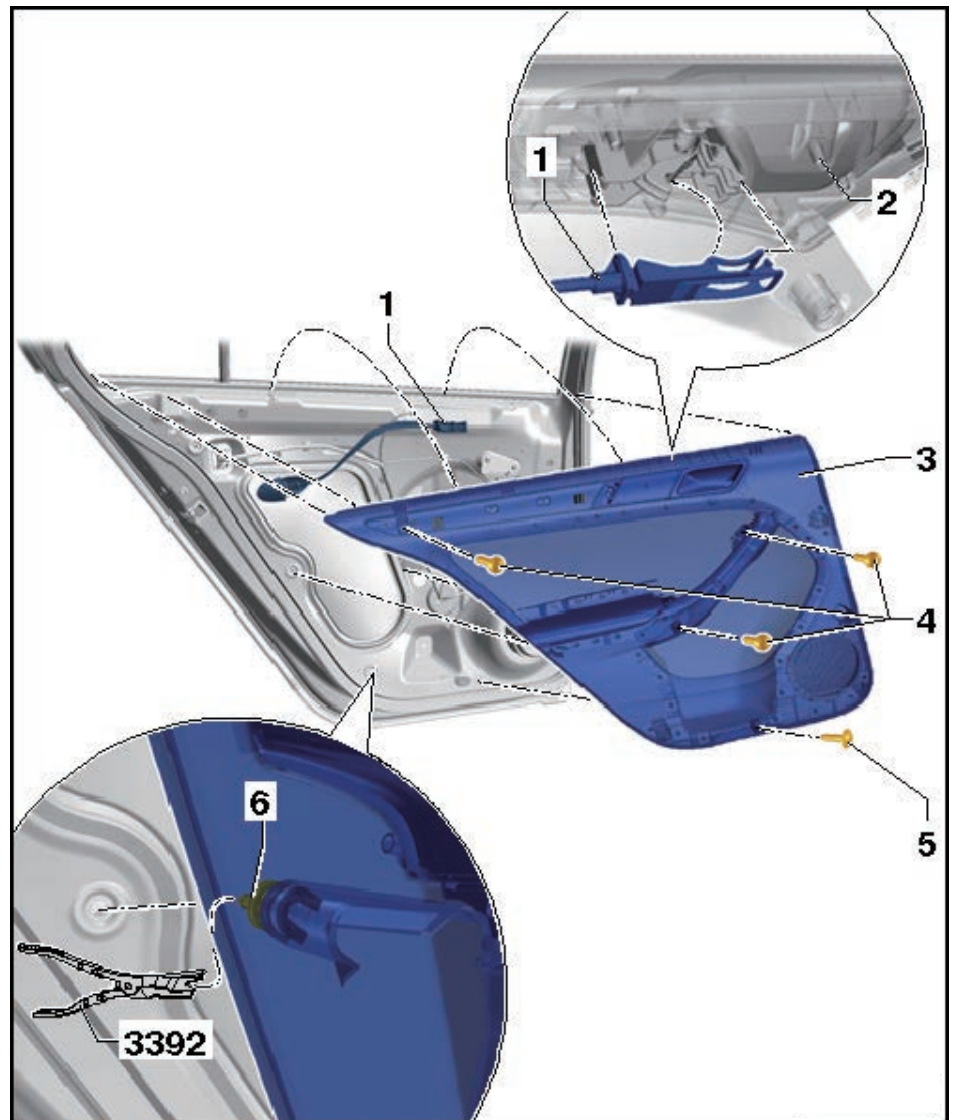
Removal and installation of trim is described for the left rear door. Follow same instructions for trim on right rear door as appropriate.

- Push decorative moulding -1- in -direction of arrow A- and remove from door trim -2- in -direction of arrow B-.



- Undo bolts -4- in area of handle recess and upper door trim (4 Nm).
- Remove bolt -5- (2 Nm).
- Release retaining clips -6- of door trim -3- in lower area from mountings, using wedges -T10383-.
- Release retaining clips -6- of door trim -3- at sides from mountings, using wedges -T10383-.
- Pull door trim -3- upwards vertically out of window slot seal.
- Detach Bowden cable -2- from inner door handle -1-.

- Disconnect the electrical plug-in connections from the door trim -3- in accordance with the vehicle's equipment.



Installing

- Install in reverse order of removal.

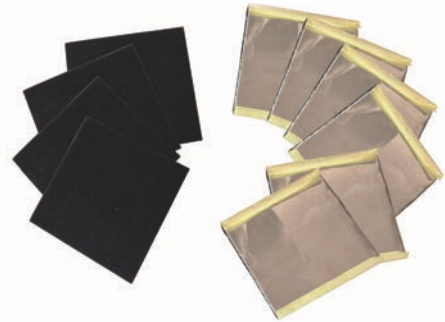
Note

Before installing, check all fasteners for damage and renew if necessary.

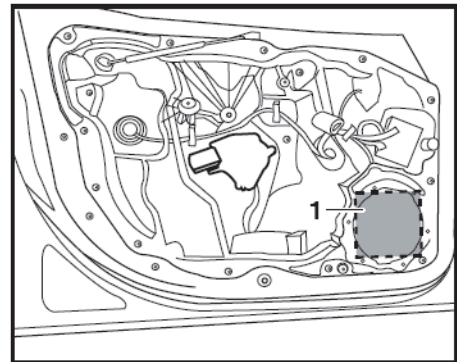
Acoustic Improvement on door

◆ *The acoustic components can improve the acoustic result in car by key position treatment.*

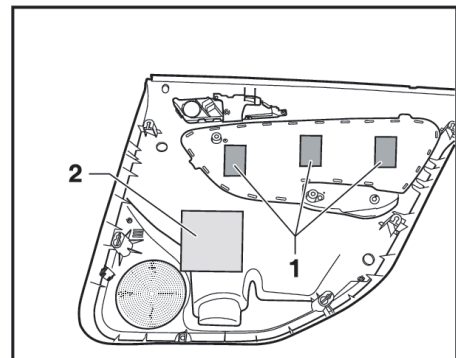
- *The real stuff you can see as picture shown.*
- *The left side are absorber sheet, which can absorber air shock from the speaker back.*
- *The right side are damping sheet, which can reduce the vibration from the door.*



- *Paste the absorber sheet - 1 - on the door sheet metal behind the speaker as the pic shown.*



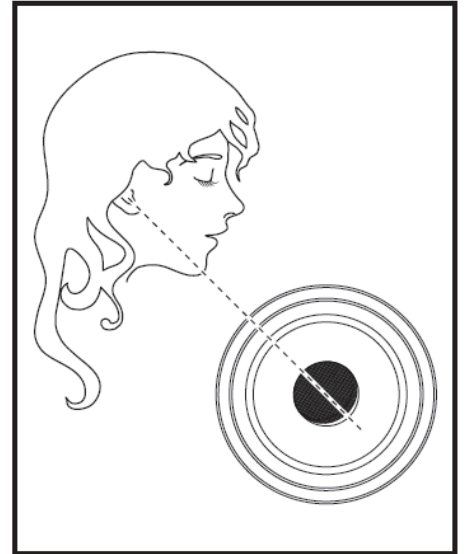
- *Paste the damping sheet - 1 - 2 - on the right position. It depends vibration point by touch.*



Tweeter angle adjustment

- ◆ *Soumatrix speakers tweeter is Bionic wide-angle point source design, which can be rotated 90 degree.*

- *For your best listening position, you can adjust the tweeter angle toward your ear.*



- *Please reverse the detached process to recover the door trim panel and the connectors. Ensure all the function is OK.*

- *To obtain best result, leave soumatrix speakers to burn-in at least 20 hours below 80% power after installation.*