

General information

Workshop staff and especially the customer can help to maintain the leather in its original condition for as long as possible by following a range of preventive measures.

In general, it is essential for the seats to be professionally cleaned on a regular basis. The type of cleaning always depends on the type of covers and the customer usage behavior.

Furthermore, external influences such as clothing dyes rubbing off onto the seats determine the level of care needed. Intensive and regular cleaning is particularly important on vehicles with light-colored seat covers.

Vehicle occupants should avoid wearing dark jeans which are not dyed through to help maintain the seat appearance in the long term. Wet items of clothing or towels should not be placed on seat covers.

When applying creams or lotions to parts of the body which could come into contact with the seat covers, allow these to work into the skin first before entering the vehicle.

Avoid eating in the vehicle where possible to reduce the risk of staining the seat covers.

Sharp or unwieldy objects such as belts or purses/wallets should not come into contact with seat covers.

Generally, loose dirt must always be removed from seat covers before they are cleaned. This means that dust particles should be removed with a duster or vacuum cleaner because the surface of the cover could otherwise be damaged by the cleaning process and when the cleaning agent is rubbed into the cover.

Exact cleaning intervals are not specified because the intervals depend on individual customer usage.

i Note

Always prevent stains from drying out by cleaning them up immediately.

If a stain dries out, it may no longer be possible to remove it with the cleaning methods listed here.

Cleaning agents

Recommended by Mercedes-Benz

Mercedes-Benz recommends the following two cleaning agents for cleaning and maintaining the seat covers on all of its passenger car model series:

- Textile upholstery cleaner
- Leather care foam

i **Note**

It is best to clean textile upholstery with a mild solution of water/dishwashing detergent or, alternatively, with textile upholstery cleaner.



P91.00-2238-00

Textile upholstery cleaner

Each of the cleaning and care products can only be used on particular materials. See the "Equipment matrix" in this chapter to find out which product is suitable for which material.

i **Note**

See the Electronic Parts Catalog (EPC) for the current replacement part numbers of both cleaning products. They can be ordered via the Global Logistics Center (GLC).



P91.00-2239-00

Leather care foam



Use of cleaning agents

Before cleaning seats, any loose dirt should always be removed from the seats and the seats should be vacuumed.

Fabric upholstery

Seats with fabric upholstery must be regularly brushed off and vacuumed.

Dirt and stains should be removed immediately whenever possible. Dry dirt, e.g. dust, ash and similar, should be removed with a vacuum cleaner and brush.

It is best to clean fabric upholstery using a microfiber cloth soaked in a mild solution of water/dishwashing detergent. The upholstery should be rubbed gently and not too vigorously. The fabric cover may otherwise be damaged. It is important to treat complete sections of the covers, e.g. an entire seat cushion side or the entire cushion surface, otherwise visible edges will be left behind. The seat should then be left to dry for 24 hours.

Alternatively, textile upholstery cleaner can also be used to clean fabric upholstery. In this case, it is particularly important to clean entire areas otherwise visible edges will be left behind. After cleaning, the foam must be removed with clean water.

The cleaning results depend on the nature and age of the soiling.

Imitation leather and Alcantara

A mild solution of water/dishwashing detergent is recommended for cleaning imitation leather and Alcantara. Never use aggressive cleaning agents such as bathroom or kitchen cleaning products. A cotton or microfiber cloth should be moistened with the mild solution of water/dishwashing detergent. The imitation leather or Alcantara cover can then be cleaned with this cloth.

Leather upholstery

Leather upholstery must be regularly cleaned and maintained by wiping it with a damp cloth and then drying.

To remove any residual soiling, apply Mercedes-Benz leather care foam to the entire seat and then work it in gently after it has dried.

Leather can become electrostatically charged. To prevent this, it is necessary to treat it regularly with Mercedes-Benz leather care foam.

Perforated leather must not get wet on the reverse side otherwise the color may rub off; therefore clean carefully and in particular dry well.

Through contact with fur seat covers or items of clothing that may release dyes (e.g. suede) the leather upholstery may discolor. These stains cannot be removed. With fur seat covers, place a layer of fabric in-between to prevent contact stains on the leather upholstery.

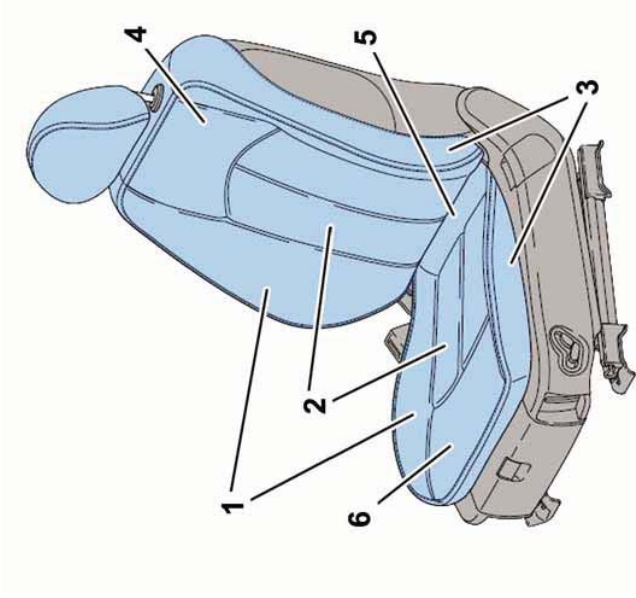
i Note on fabric upholstery

It is not always possible to remove stains from fabric upholstery without visible edges forming. In such cases, the individual seat fluting, the entire part or the entire area must be cleaned uniformly. Several cleaning steps may be necessary.

Mercedes-Benz

Seat cover components (model 211)

- 1 Side bolsters
- 2 Seat center panels
- 3 Seat rims
- 4 Upper beaded section
- 5 Rear beaded section
- 6 Front beaded section



P91.10-3212-00

Equipment matrix

Model series/ model	Equipment designation	Seat cover	Material	Cleaning agent/remedy
169/245	Fabric	Entire seat cover	PES fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
	Fabric/imitation leather:	Seat center panel	PES fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
		Side bolsters	PVC imitation leather	Mild water/dishwashing detergent solution



Model series/ model	Equipment designation	Seat cover	Material	Cleaning agent/remedy
	Artico leather	Entire seat cover	PVC imitation leather	Mild water/dishwashing detergent solution
	Leather	Entire seat cover	Genuine leather	Leather care foam
W/S 203	CLASSIC fabric	Entire seat cover	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
	ELEGANCE fabric	Entire seat cover	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
	ELEGANCE Twin leather/Artico	Entire seat cover	PVC imitation leather	Mild water/dishwashing detergent solution
	ELEGANCE leather	Entire seat cover	Genuine leather	Leather care foam
	AVANTGARDE Twin fabric	Seat center panel	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
		Side bolsters	PVC imitation leather	Mild water/dishwashing detergent solution
	AVANTGARDE Twin leather/Artico	Entire seat cover	PVC imitation leather	Mild water/dishwashing detergent solution
	AVANTGARDE leather	Entire seat cover	Genuine leather	Leather care foam

Equipment matrix

Model series/ model	Equipment designation	Seat cover	Material	Cleaning agent/remedy
W/S 203	SPORT Twin leather/Artico	Entire seat cover	PVC imitation leather	Mild water/dishwashing detergent solution
	SPORT leather	Entire seat cover	Genuine leather	Leather care foam
CL 203	Fabric	Entire seat cover	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
	Artico	Entire seat cover	PVC imitation leather	Mild water/dishwashing detergent solution
	Leather	Entire seat cover	Genuine leather	Leather care foam
W/S 204	CLASSIC fabric	Seat center panel	PES fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
		Side bolsters	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
	CLASSIC Artico	Entire seat cover	PVC imitation leather	Mild water/dishwashing detergent solution
	ELEGANCE fabric	Entire seat cover	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
	ELEGANCE leather	Entire seat cover	Genuine leather	Leather care foam



Model series/ model	Equipment designation	Seat cover	Material	Cleaning agent/remedy
	AVANTGARDE Twin fabric	Seat center panel	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
		Side bolsters	PVC imitation leather	Mild water/dishwashing detergent solution
	AVANTGARDE Twin leather/Artico (USA)	Entire seat cover	PVC imitation leather	Mild water/dishwashing detergent solution
		Entire seat cover	Genuine leather	Leather care foam
C/A 209	SPORT leather	Entire seat cover	Genuine leather	Leather care foam
		Entire seat cover	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
	ELEGANCE fabric	Entire seat cover	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
		Entire seat cover	Genuine leather	Leather care foam
	ELEGANCE leather	Entire seat cover	Genuine leather	Leather care foam
		Entire seat cover	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
	AVANTGARDE Twin fabric	Seat center panel	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
		Side bolsters	PVC imitation leather	Mild water/dishwashing detergent solution
	AVANTGARDE Twin leather/Artico	Entire seat cover	PVC imitation leather	Mild water/dishwashing detergent solution
		Entire seat cover	Genuine leather	Leather care foam
	AVANTGARDE leather	Entire seat cover	Genuine leather	Leather care foam

Equipment matrix

Model series/ model	Equipment designation	Seat cover	Material	Cleaning agent/remedy
C/A 209	Climate	Entire seat cover	Genuine leather	Leather care foam
211	CLASSIC fabric	Entire seat cover	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
	ELEGANCE fabric	Entire seat cover	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
	AVANTGARDE fabric	Seat center panel	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
		Side bolsters	PVC imitation leather	Mild water/dishwashing detergent solution
	Artico leather	Entire seat cover	PVC imitation leather	Mild water/dishwashing detergent solution
	CLASSIC leather	Entire seat cover	Genuine leather	Leather care foam
	ELEGANCE leather	Entire seat cover	Genuine leather	Leather care foam
	Nappa leather	Entire seat cover	Genuine leather	Leather care foam
219	Lugano leather	Entire seat cover	Genuine leather	Leather care foam



Model series/ model	Equipment designation	Seat cover	Material	Cleaning agent/remedy
	AVANTGARDE fabric	Seat center panel	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
		Side bolsters	Genuine leather	Leather care foam
		Entire seat cover	Genuine leather	Leather care foam
171	Fabric	Entire seat cover	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
		Entire seat cover	Genuine leather	Leather care foam
		Entire seat cover	Genuine leather	Leather care foam
230	Fabric	Entire seat cover	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
		Entire seat cover	Genuine leather	Leather care foam
		Entire seat cover	Genuine leather	Leather care foam
221	Leather	Entire seat cover	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
		Entire seat cover	Genuine leather	Leather care foam
		Entire seat cover	Genuine leather	Leather care foam

Equipment matrix

Model series/ model	Equipment designation	Seat cover	Material	Cleaning agent/remedy
221	Fabric	Entire seat cover	PES/WO fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
	Exclusive leather	Entire seat cover	Genuine leather	Leather care foam
216	Leather	Entire seat cover	Genuine leather	Leather care foam
	Exclusive leather	Entire seat cover	Genuine leather	Leather care foam
164/251	Fabric/imitation leather:	Seat center panel	PES fabric	Mild solution of water/dishwashing detergent or textile upholstery cleaner
		Side bolsters	PVC imitation leather	Mild water/dishwashing detergent solution
	Artico leather	Entire seat cover	PVC imitation leather	Mild water/dishwashing detergent solution
	SPORT	Seat center panel	Alcantara	Mild water/dishwashing detergent solution
		Side bolsters	PVC imitation leather	Mild water/dishwashing detergent solution
	Leather	Entire seat cover	Genuine leather	Leather care foam



Model series/ model	Equipment designation	Seat cover	Material	Cleaning agent/remedy
	Nappa leather	Entire seat cover	Genuine leather	Leather care foam

Comfort systems

Multicontour seat (SA)

The multicontour seat allows passengers to adapt the comfort of the seat to their orthopedic needs and wishes.

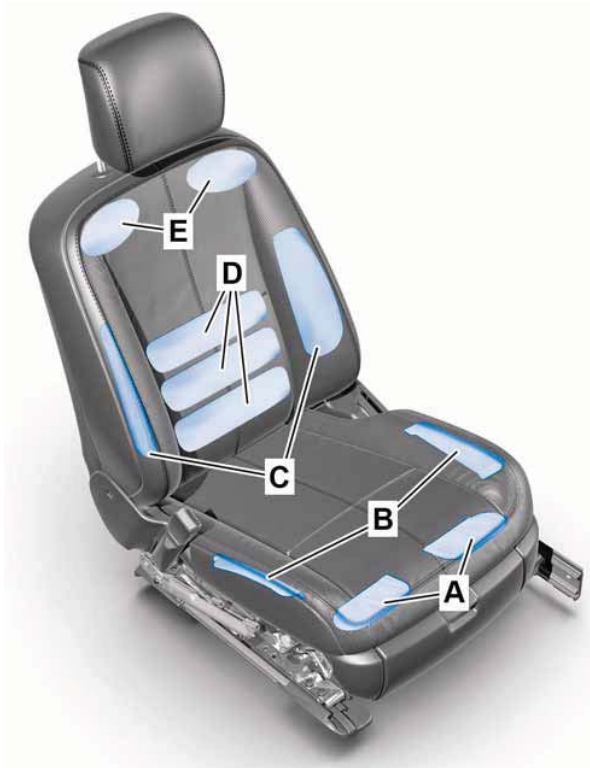
Several individually adjustable air cushions are installed in the multicontour seat for this purpose. Individual adjustment of the contour and surface hardness of the backrest and seat cushion is made possible by admitting air to or releasing air from the respective integrated air cushions.



P91.12-3150-00

Location of rear seat air cushions

- F Side area of backrest
- G Lumbar area of backrest



P91.10-3213-00

Location of front seat air cushions

- A Upper leg area of seat cushion (up to 12/2006)
- B Side area of seat cushion
- C Side area of backrest
- D Lumbar area
- E Shoulder area of backrest

The air cushions are located in the upper leg area, in the side areas of the seat cushion and in the shoulder area, lumbar area and side area of the backrest. Air cushion adjustment requests are read by a control unit and are then implemented in the air cushions by means of pneumatic valves. Compressed air is supplied by a pneumatic pump located in the trunk or load compartment of the vehicle. On vehicles without an automatic readjustment function for the compressed air supply, the air pressure must be manually readjusted by the customer.

Dynamic seat (SA)

The dynamic seat is a development of the multicon-tour seat and features the same number of air cham-bers for adjusting the backrest/seat cushion con-tour and seat cushion length. Seat cushion depth can only be adjusted on vehicles that are not equipped with electric seat cushion fore/aft adjustment as standard.

The seat offers an additional function for further enhancing driving pleasure and ride comfort by auto-matically adapting the air pressure in the air cushions at the sides of the backrest. This means that, when cornering, the air pressure in the air cushions located on the outside of the curve is dynamically increased to improve lateral support.

Lumbar support

In model 230, the air cushions located in the area of the lumbar vertebrae of the passenger can be made to pulse by admitting air to/releasing air from them. This provides added relief to the back muscles and intervertebral disks of the passenger.

In models 216 and 221, additional air cushions are integrated in the seats for the massage function. These cushions do not affect the actual contour of the seat in the lumbar area.

Some vehicles are equipped with a manual lumbar support to support the spinal column of the passenger. On these vehicles, the desired backrest contour is set using an adjustment wheel or adjust-ment lever.

Massage

To prevent the passenger's back from becoming tense on long trips, the dynamic seat is equipped with a massage function.

The massage function operates using seven air cush-ions positioned one above the other. These cushions are successively filled with air which is held in the respective cushions for a period of time and then released.

On the front seats, two massage programs are avail-able. It is also possible to select between two levels of intensity for each program.

- Rolling massage (gentle)
- Rolling massage (strong)
- Up/down massage (gentle)
- Up/down massage (strong)



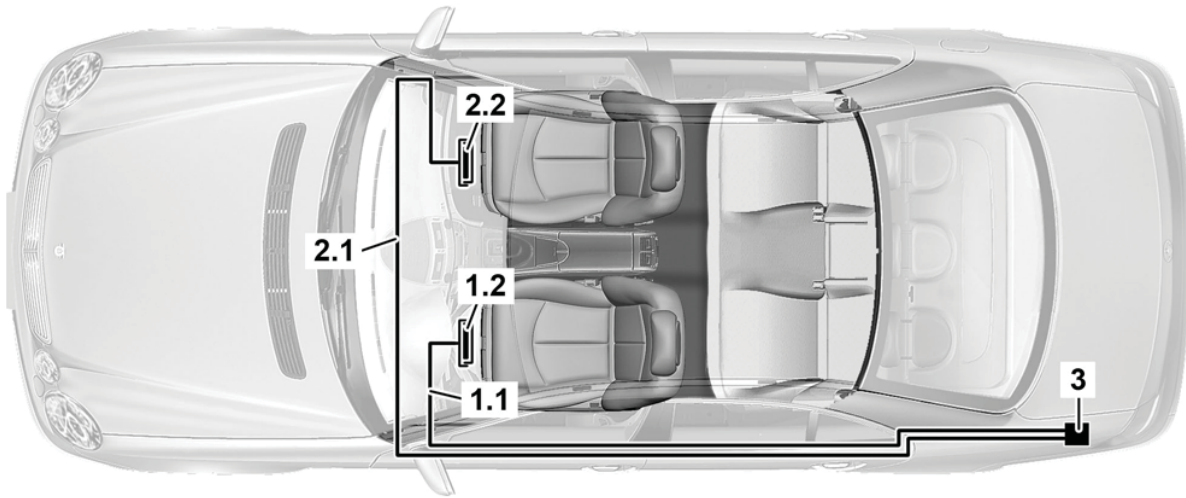
P91.10-3214-00

Location of front seat massage inserts

H Massage inserts

Comfort systems

Location of components for pneumatic comfort system in seat



Location of components for multicontour seat (MCS) in model series 211 and 219 (with code 404, 405)

P91.00-2240-00



P91.10-3215-00

Front passenger seat (MCS)



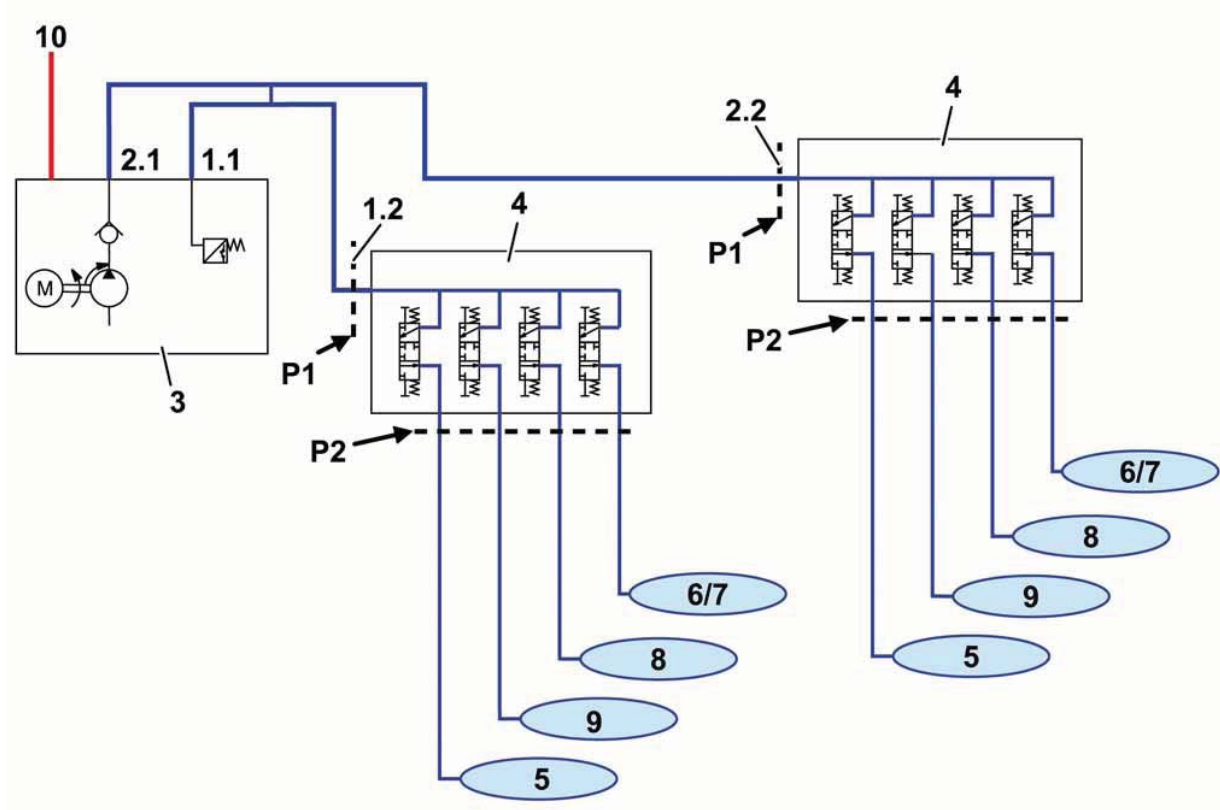
P91.10-3216-00

Driver seat (MCS)

- 1.1 Left MCS line
- 1.2 Left MCS seat separation point
- 2.1 Right MCS line
- 2.2 Right MCS seat separation point
- 3 MCS pump
- 4 Control valve

- 5 Front air cushion insert
- 6 Left air cushion insert
- 7 Right air cushion insert
- 8 Upper center air cushion insert
- 9 Lower center air cushion insert

Pneumatic diagram for pneumatic comfort system in seat



P91.10-3217-00

Pneumatic diagram for multicontour seat (MCS) in model series 211 and 219 (with code 404, 405)

- | | |
|-------------------------------------|--|
| 1.1 Left MCS line | 7 Right air cushion insert |
| 1.2 Left MCS seat separation point | 8 Upper center air cushion insert |
| 2.1 Right MCS line | 9 Lower center air cushion insert |
| 2.2 Right MCS seat separation point | 10 12 V on-board electrical system power supply |
| 3 MCS pump | P1 Pressure supply inlet test point
(seat separation point) |
| 4 Control valve | P2 Control valve test point
(control valve) |
| 5 Front air cushion insert | |
| 6 Left air cushion insert | |

Noises, general

Seat noises

Seat noises depend on:

- The individual seat position and
- The way each customer gets into and sits in the vehicle.

Seat position

In order to analyze the complaint, retain the original seat position, cushion angle and backrest position of the customer. This is the only way the noise complained of can be identified.

Tip: If possible, store the settings in the memory.

Noise analysis

The noise analysis should be performed together with the customer. The customer may perceive a different noise to the mechanic in question.

Procedure for noises in seat substructure

Noises often arise from basic distortions. Before working on parts of a seat cushion or the seat adjustment mechanism, release the seat connection and move the seat through its entire travel once. Then reconnect the seat connection. Most complaints will be eliminated by releasing and then reconnecting the seat.

Remedial action

If noises are still present once any basic distortions have been eliminated, search for a potential cause in the published documents (TIPS, AR, SI).

Felts and lubricants

Always use the felts and lubricants specified in the documents. These have been approved by Mercedes-Benz and offer a long-term solution. Use the specified part numbers because using a different felt could cause additional noises or the felt may wear more quickly and cause noises at a later stage.

If no part numbers are specified, the materials in the noise kit (see next page) can be used.

Contacting the Market Performance Center (MPC)

If no remedy can be found for a particular noise, send a TIPS case enquiry to the MPC.

Fixed-First-Visit (FFV) ratio

Once the component affected is removed, carry out all known measures to deal with noise and solve the problem simply (stick on felt, grease, etc.) in order to avoid follow-up repairs in line with the FFV targets and to increase customer satisfaction. See the "Combined Fixed-First-Visit measures" subchapter on page 40 for more information on the definition of the FFV ratio.

Noise kit with felt overview

The Mercedes-Benz "Noise kit" has been developed especially for Mercedes-Benz workshops and is intended to effectively eliminate creaking, squeaking and cracking noises.

The lubricants were created especially for Mercedes-Benz vehicles and offer the following advantages over conventional lubricants:

- Usage temperature from -40°C to +140°C
- Compatible with all "interior" materials (e.g. plastics, seals, (non-ferrous) metals, leather)
- Optimal long-term lubrication
- Resistant to other environmental influences (dirt, moisture, dust, etc.)
- Non-toxic
- Lubricants available worldwide













P58.00-2086-00

Noise kit

i Note

The noise kit can be ordered via the Global Logistics Center (GLC).
Order no.: A 000 580 03 50

Noise Damping Service Kit

	<p>Filz • Felt • Feture</p> <p>A 000 983 17 10 (10 x 1 mm) A 000 983 71 10 (15 x 1 mm)</p>		<p>Filz • Felt • Feture</p> <p>A 000 983 89 10 (70 x 3 mm)</p>
 	<p>Filz • Felt • Feture</p> <p>A 001 983 51 10 (25 x 2 mm) A 001 983 23 10 (40 x 2 mm) A 115 828 08 97 (500 x 50 x 2 mm) Bogenformat mm / presented on strips mm / surbande papier mm</p>		<p>Filz • Felt • Feture</p> <p>A 168 983 00 92 (25 x 60 x 4 mm)</p>
	<p>Filz • Felt • Feture</p> <p>A 000 983 12 92 (1500 x 2 mm)</p>		<p>Filz • Felt • Feture</p> <p>A 001 983 52 10 (70 x 6 mm)</p>
 	<p>Filz • Felt • Feture (Polyester • polyester • polyester)</p> <p>A 001 983 40 10 (70 x 55 x 2,2 mm) A 001 983 50 10 (70 x 55 x 2,2 mm)</p>		<p>Imprägnierter Schaum • Impregnated Foam • Mousse imprégnée</p> <p>A 003 983 54 85 (10 x 30 x 2000 mm) Dicke / thickness / épaisseur x Breite / width / largeur x Länge / length / longueur</p>

P58.00-2087-00

Felt overview in lid of noise kit

Combined Fixed-First-Visit measures

Background: Fixed-First-Visit (FFV) for seats

Combinations of measures have been defined for seats to prevent follow-up repairs in the long term. These are packages of technical measures which optimize the FFV ratio by producing successful repairs. The measures are intended to prevent the need future follow-up repairs. Both the remedy for the particular complaint (Tips, AR, SI) and the defined packages of measures must always be implemented.

The aim is to reduce follow-up repairs. This increases customer satisfaction.

To achieve customer satisfaction, it is essential that good quality, long-term repair results are achieved and that repeat workshops visits are reduced.

Definition

Follow-up repairs are identified based on warranty and goodwill claims in VEGA. The following criteria are used:

- One VIN, numerous workshop visits
- Damage codes (SSL) for initial and follow-up repair from same SSL group. There are currently approx. 100 SSL groups.
- Time (T) between repairs is less than or equal to 365 days
- In the event of workshop changes, the follow-up repairs are assigned to the workshop which caused them

FFV ratio

The FFV ratio is the ratio of initial warranty and goodwill (GuK) repairs to the overall number of warranty and goodwill repairs.

Customer complaints about design group 91.10 Front seats						Implement the relevant measures from the WIS literature, AR etc. as well as the associated packages of measures from TIPS.	TIPS packages (described on following pages)	
Model	Backrest	Cushion	Seat adjustment	Entire seat	Package number		Document title	
203		X	X		+	Noises from seat adjuster/cushion frame		
211		X	X					
219		X	X					
203	X				+	Noises from backrest frame		
209	X							
211	X							
219	X							
164			X		+	Seat adjustment nonfunctional, seat heaters and/or active ventilation nonfunctional, SRS indicator lamp on, electric head restraint adjustment nonfunctional		
251			X					
221	X	X	X	X	+	Noises when opening valuables compartment/stowage compartment		
171	X				+	Noises from backrest frame		
169	X				+	Noises from backrest		
245	X							
169		X	X		+	Noises and lateral play at seat adjuster and cushion frame		
245		X	X					

Combined Fixed-First-Visit measures

i Chapter note

This chapter is intended to give you a rough overview of the TIPS documents currently available. See the respective document for detailed descriptions of the remedial actions and the current part numbers, which are not published here. You can find these under the specified design group or symptom.

Package 1: Noises from seat adjuster/cushion frame

Validity: model 203, 211, 219

Design group: 91.10 Front seats

Complaint:

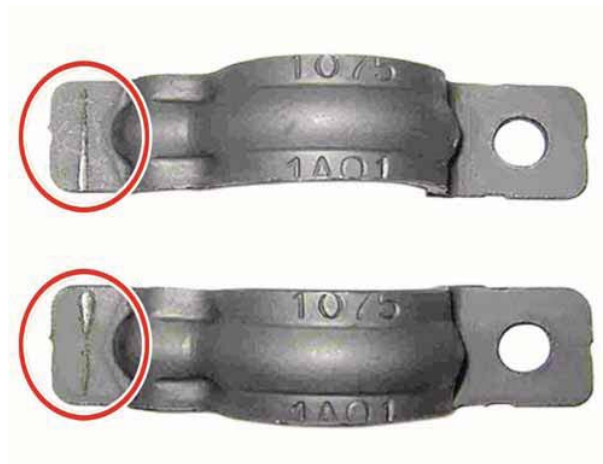
Noises from area of seat adjuster or cushion frame.

Symptoms:

Cracking, grunting, metallic, knocking and/or creaking noises etc.

Cause:

The cushion frame brackets in vehicles produced before 31.06.06 develop a burr as the vehicle mileage increases which can cause the described noise complaint (see picture).



P91.10-3231-00

Cushion frame bracket with signs of wear

Package 2: Noises from backrest frame

Validity: model 203, 209, 211, 219

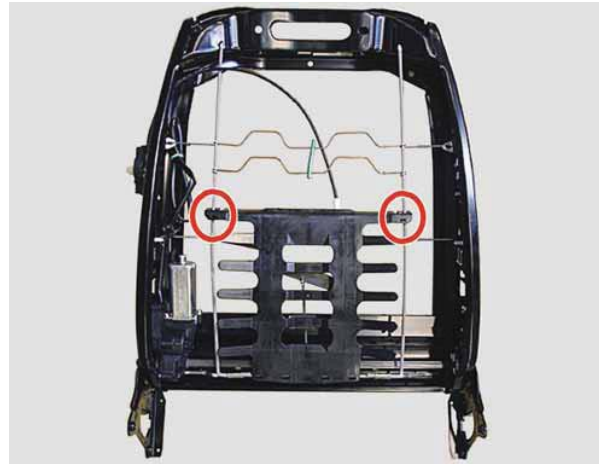
Design group: 91.10 Front seats

Complaint:

Noise complaints in backrest frame of driver/front passenger seat during load change.

i Note

These remedial actions must also be implemented whenever work is performed on the backrest frame (91 O13) or backrest cover (91 A15, 91 N15). The measures must always be performed if the backrest frame is exposed to avoid follow-up repairs.

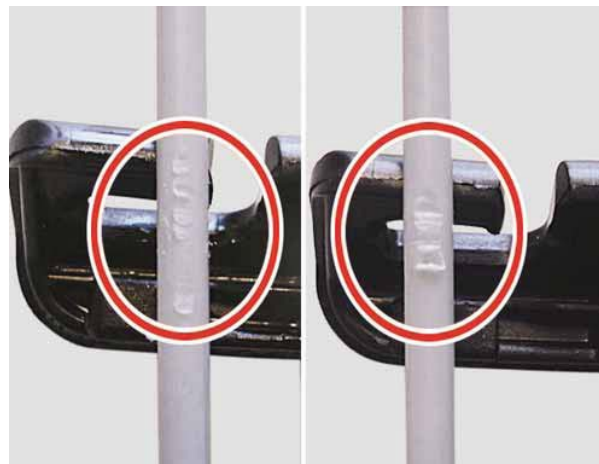


P91.00-2241-00

Interface between guide wires and lumbar support frame

Cause:

- At low temperatures, natural vibrations of the lumbar support frame can result in damage to the guide wire when a person sits down in the seat.
- On vehicles produced up to 09.2005, the Pulmaflex mat rubs against the attachment points on the backrest frame. There are two attachment points on both the left and right side of the backrest frame.
- On model 203.7 and 209, relative movements can result in noise complaints from the lower area of the backrest.



P91.00-2242-00

Damaged guide wires

Combined Fixed-First-Visit measures

Package 3: Seat adjustment nonfunctional, seat heaters and/or active ventilation nonfunctional, SRS indicator lamp on, electric head restraint adjustment nonfunctional

Validity: model 164.1, 251 and 164.8 up to VIN 143335.

Design group: 91.10

Complaint:

- The SRS indicator lamp in the instrument panel lights up
- Seat adjustment nonfunctional
- Seat heaters and/or active ventilation nonfunctional
- Electric head restraint adjustment nonfunctional

Symptoms:

Seat cannot be adjusted forwards, backwards, up or down. Electric head restraint cannot be adjusted. SRS indicator lamp lights up. Seat adjustment function error. Seat heater nonfunctional. "Seat function error" appears in the display.

Cause:

The seat wiring harness in the height adjuster may be damaged as a result of incorrect routing.

Paket 4: Noises from valuables/stowage compartment lock

Validity: model 221

Design group: 91.10

Complaint:

Noises when opening and closing the valuables/stowage compartment on the seat.

Symptoms:

Cracking, grunting, knocking or creaking noises etc.

Cause:

Lock is sluggish.

i Note

These remedial measures must be performed whenever other work is performed on the seat, even if the customer does not directly complain about this problem. Preventive treatment of the lock is intended to avoid follow-up repairs in the future.



Valuables/stowage compartment

P91.10-3218-00

Package 5: Noises from backrest

Validity: model 171.4

Design group: 91.10

Complaint:

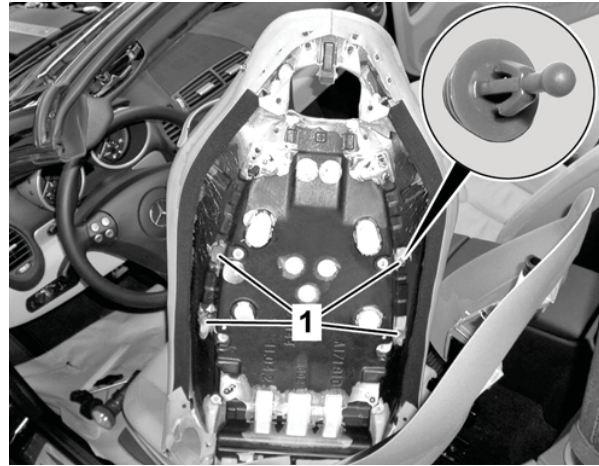
Noises from backrest

Symptoms:

Cracking or creaking noises etc.

Cause:

The red side attachment clips between the padding carrier and the backrest frame are broken. As a result, the side bolsters of the padding carrier are no longer fixed to the backrest frame.



P91.10-3219-00

1 Position of clips

Package 6: Noises from backrest

Validity: model 169, 245

Design group: 91.10

Complaint:

The customer complains of noises in the backrest.

Symptoms:

Cracking, knocking or creaking noises etc.

Causes:

- The seat heater cable can chafe on the rubberized hair mat (all vehicles produced up to 19.7.06 may be affected.)
- The felt on the head restraint paddle can slip out of place and cause noises (all vehicles can be affected).
- The felt on the clips to the Pulmaflex mat are missing or have slipped out of place (all AVANTGARDE or ELEGANCE vehicles may be affected.)

Combined Fixed-First-Visit measures

Package 7: Noises and lateral play at cushion frame or at seat adjuster

Validity: model 169 up to VIN #148889,
245 up to VIN # 005018

Design group: 91.10

Complaint:

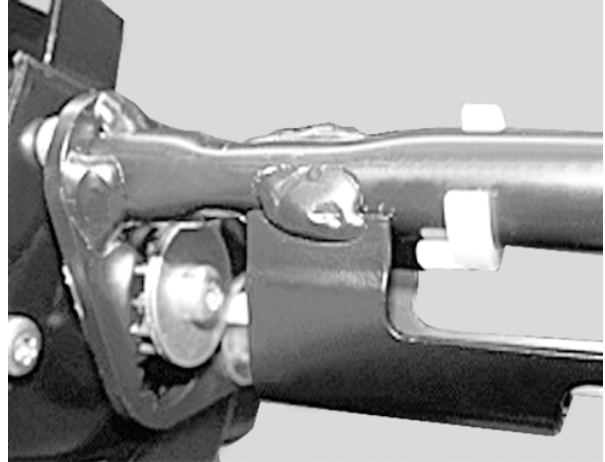
Noises from the cushion frame or seat adjuster.

Symptoms:

Cracking, grunting, knocking or creaking noises etc.

Cause:

Relative movements can lead to noises and play.



P91.10-3220-00

Installed clip spacer ring

i Chapter note

This chapter is intended to give you a rough overview of the TIPS documents currently available. See the respective document for detailed descriptions of the remedial actions and the current part numbers, which are not published here. You can find these under the specified design group or symptom.

Noise from front seat during load change

Validity: model 203

Design group: 91.10 Front seats

Complaint:

Noise from front seats during load change.

Symptoms:

Cracking, grunting or creaking noises etc.

Cause:

Inclination adjustment shaft in the area of the bearing brackets without antifriction agent.

i Note

Do not replace seat adjustment, only work on vehicles which are the subject of complaint.

Noises

Noises at front seats

Validity: model 124, 126, 129, 140, 163, 168, 169, 170, 171, 201, 202, 203, 208, 209, 210, 211, 215, 219, 220

Design group: 91.10

Complaint:

Noises at front seats.

Symptoms:

Cracking, grunting, metallic, knocking, whirring and/or creaking noises etc.

Cause:

Different noise sources to be localized individually in each case of complaint at contact points or surfaces on moving components of the seat adjustment mechanism under load.

i Note

The front seat must not be removed and disassembled in every case to eliminate noise complaints.

Front seat folding backrest is stiff, sticks and causes noises

Validity:

203.7 up to #A959476

209.3 up to #F222147

209.4 up to #F223439

Design group: 91.10

Complaint:

Complaint about sluggish, jamming backrest on folding front seat. In some cases the backrest makes noises.

Symptoms:

Seat adjustment mechanism is sluggish.

Cracking or creaking noises etc.

Cause:

Release hook sticks or has excessive resistance.

Noises from height adjuster during load change and on rough roads

Validity: model 164, 251 OK VIN: #220830

Design group: 91.10

Complaint:

Creaking noise from area of crossmember of height adjuster during load change and on rough roads. Both partially electric and fully electric seats are affected.

Symptoms:

Cracking or creaking noises etc.

Cause:

Inaccurate positioning of the felt on the transverse pipe (door side).



P91.10-3221-00

Transverse pipe

Noises when electric seat fore/aft adjuster is operated

Validity: model 171 with electric seat adjustment (with code 275, 241, 242)

Design group: 91.10

Complaint:

Noises when electric seat adjuster is operated, caused by deformation of flexible shaft.

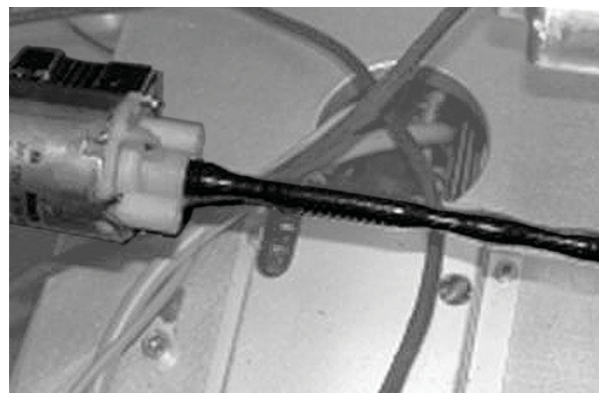
Generally, the electric seat adjuster does not need to be replaced due to this complaint. This measure must only be implemented if the flexible shaft between motor and transmission is visibly deformed and still engaged on both sides (the seat has **not** been moved on one side only).

Symptoms:

Noises.

Cause:

Damage to flexible shaft between motor and transmission of seat fore/aft adjuster.



P91.10-3222-00

Flexible shaft at motor end

Noises

Noises from seat rail for seat fore/aft adjustment

Validity: model 221

Design group: 91.10

Complaint:

Cracking noises from the seat rail for seat fore/aft adjustment on the tunnel side of the front seats. This complaint can arise especially on rough roads.

Symptoms:

Cracking noises etc.

Cause:

Contact between upper and lower rail at rear end of seat rail for seat fore/aft adjustment.

Play/noises in electric seat adjustment or error messages from WSS sensors

Validity: model 164, 211, 219, 251
(with USA country code)

Design group: 91.29

Complaint:

- The customer complains of play or noises in the electric seat adjustment
- SRS indicator lamp lights up
- Fault messages from WSS sensors

Symptoms:

Cracking, creaking, metallic noises or a fault message.

Cause:

- Broken or damaged bushing in seat adjuster causes play or noises during load change.

- Broken or damaged bushing in seat adjuster causes play and possibly an SRS fault message.
- Various fault codes



Damaged bushing

P91.10-3223-00

Noises from seat cushion on multicontour seats and dynamic seats

Validity: model 211, 219 (with code 404 and 405, 433 and 434)

Design group: 91.25

Complaint:

On multicontour or dynamic seats, the driver complains about noises from the seat cushion area.

Symptoms:

Cracking noises etc.

Cause:

The multicontour or dynamic seat insert in the seat cushion is not encased in nonwoven fabric and can cause noises at the interfaces between the padding and cover.

Complaint concerning noises from DS/MCS pump

Validity: model 221.0, 221.1 (with code 406, 409 and 432)

Design group: 91.25

Complaint:

The customer complains that the DS/MCS pump is too loud.

Symptoms:

Cracking, whirring, metallic noises etc.

Cause:

The predecessor DS/MCS pump was perceived as too loud by some customers. The new pump with optimized flow behavior is quieter.

Noises

Noises from rear backrest (on rough roads)

Validity: model 203

Design group: 91.12

Complaint:

Rear backrest lock rattles on rough roads. Both the one-piece (1/1) and the split (1/3 - 2/3) backrests are affected.

Symptoms:

Cracking noises etc.

Cause:

Relative movements on rough roads cause slight backrest offset in the direction of travel.

During operation of the active seat cushion ventilation, the fans in the rear seat cushions make rattling or grinding noises.

Validity: model 221.0, 221.1 as of VIN 000001 up to VIN 126227 (with code 223/224 or 402)

Design group: 91.30

Complaint:

During operation of the active seat cushion ventilation, the fans in the rear seat cushions make rattling or grinding noises.

Symptoms:

Rattling, grinding or whirring noises etc.

Cause:

Collision between fan wheel and cushion shell during use.

Noises from head restraint CAK

Validity: model 203, 211, 219, 221
(up to week 41/2006)

Design group: 91.16

Complaint:

Creaking noises from CAK module in head restraint.

Symptoms:

Cracking or creaking noises etc.

Cause:

The plastic housings of the six pins in the CAK module are too big. This tolerance results in noises.

Creases

Creasing on driver/front passenger seat cushion cover

Validity: model 221 as of VIN 221.###-1A-045196 **Cause:**

Design group: 91.18

Complaint:

The driver/front passenger seat cushion covers in model series 221 become creased or are wavy.

Symptoms:

Creasing

The loose style of the seat covers in model 221 appears unusual to the customer who may then make a complaint.

Creasing and waviness on driver, front passenger cushion cover

Validity: model 221.###-1A- up to 045196

Design group: 91.10

Complaint:

Wavy seat cushion covers.

Symptoms:

Creasing, seat cover works loose

Cause:

Cushion covers lie loosely on upholstery and are wavy. This is an intentional design which aims to improve the perceived quality and break-in comfort. Slight creasing is desirable.

Rear cover creases

Validity: model 211 (with code 807) up to week 44/06

Design group: 91.12

Complaint:

Creases in rear covers on vehicles as of model year 8/07.

On vehicles with Artico leather (with code 140), only the rear backrests (1/1) are affected.

On vehicles with Classic leather (with code 820) and Elegance equipment, the rear backrests (1/1) and the rear cushions (1/1) are affected.

Symptoms:

Creasing.

Cause:

Deviations in tolerance when sewing covers.



P91.12-3151-00

Location of wire pockets in rear bench seat

Creases and waviness in rear seat cushion cover

Validity: model 221

Design group: 91.12

Complaint:

The rear seat cushion covers become creased or are wavy.

Symptoms:

Creasing.

Cause:

The loose style of the seat covers in model 221 appears unusual to the customer who may then make a complaint.

Malfunctions

Lateral play in seat cushion noticeable when cornering

Validity: model 169, 245 (with code 221 or 222)

Design group: 91.10

Complaint:

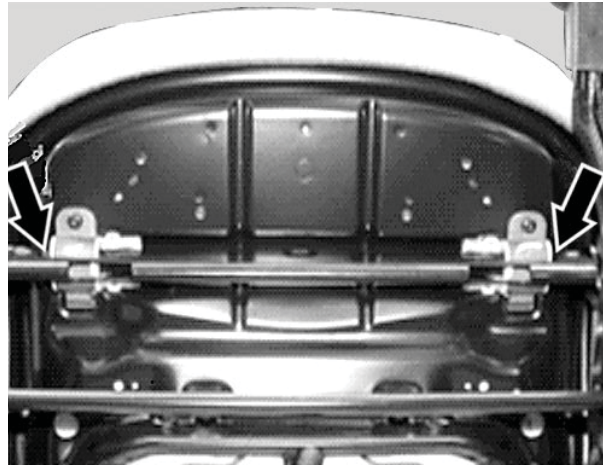
There is lateral play in the seat shells of both front seats. The seat feels loose during cornering because of this play. A cracking noise can also be heard when the seat cushion shell moves.

Symptoms:

Cracking or knocking noises etc.
Insufficient lateral support provided by seat.

Cause:

The front bearing shells (cam clips) of the seat cushion shell allow the seat cushion a certain amount of play. The cracking noise occurs between the plastic bearing and cross-connection pipe.



P91.10-3225-00

Position of cam clips

Easy entry/exit feature of seat fore/aft adjustment nonfunctional

Validity: model 164, 171, 203, 209, 211, 219, 230, 251

Design group: 91.10

Complaint:

The customer complains about the absence of the seat fore/aft adjustment function of the easy entry/exit feature. The steering wheel moves to allow better entry and exit without seat fore/aft adjustment.

Symptoms:

Function error.

Causes:

Possibility 1: On vehicles produced up to 31.5.05, replacing the instrument cluster can cause the seat fore/aft adjustment function of the easy/entry exit feature to cease operating.

Possibility 2: On vehicles produced as of 1.6.05, the seat fore/aft adjustment function of the easy entry/exit feature has been discontinued in series production due to technical modifications. It can no longer be ordered by customers.

Models 164 and 251 are an exception to this. On these models the function was discontinued in series production as of January 2006.

"Pulse" LED flashing**Validity:** model 211, 219**Design group:** 91.10**Complaint:**

The customer complains of insufficient power of the pneumatic pump for dynamic seat control (FDS) and a flashing "Pulse" LED.

Symptoms:

Dynamic seat nonfunctional.

Cause:

Overload.

**PULSE switch**

P91.10-3226-00

C-pillar catch on rear seat stiff**Validity:** model 169 as of VIN 005873**Design group:** 91.12**Complaint:**

Backrest requires a great deal of effort to lock.

Symptoms:

Backrest can only be locked with difficulty or not at all.

Cause:

The striker does not meet the opening in the backrest frame centrally and does not collide with the housing of the C-pillar catch.

Malfunctions

The backrest of the second seat row cannot be unlocked

Validity: model 164.8

Design group: 91.12

Complaint:

The backrest of the second seat row cannot be unlocked.

Symptoms:

The backrest is sluggish or cannot be adjusted forwards.

Cause:

Broken coupling bar in pull mechanism

Backrest of second seat row cannot be locked or cannot be released from the lug on the third seat row.

Validity: model 164.8

Design group: 91.12

Complaint:

Backrest of second seat row cannot be locked or cannot be released from the lug on the third seat row.

Symptoms:

The backrest is sluggish or cannot be adjusted forwards.

Cause:

The Bowden cable has jumped out of the fixing and the cover serving as a catch is no longer clipped in.

Backrest (MCS) air cushion control valve switch broken

Validity: model 169, 203, 209, 245
(up to week 38/06)

Design group: 91.25

Complaint:

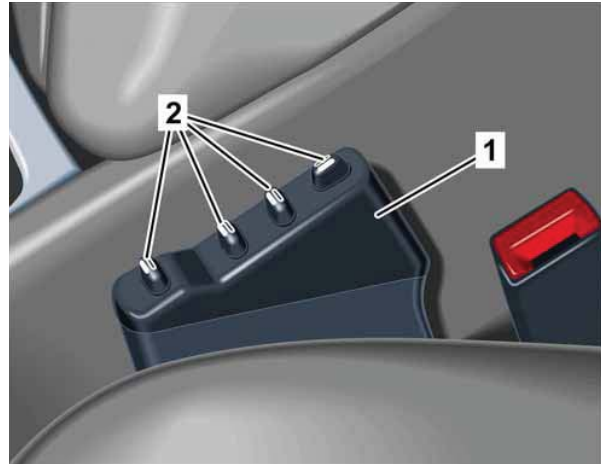
Multicontour seat backrest control valve switch broken.

Symptoms:

.Multicontour seat nonfunctional.

Cause:

Damage due to external force, incorrect operation.



P91.10-3227-00

Shown on model 203

- 1 Multicontour seat control valve
- 2 Control valve switch

Malfunctions

Partially electric seat adjustment switch breaks

Validity: model 211, 219 (without code 275, 241, 242), vehicles produced as of 1.07.04

Design group: 91.29

Complaint:

Switch broken and/or partially electric seat adjustment nonfunctional.

Symptoms:

Partially electric seat adjustment nonfunctional.

Cause:

Damage to switch. Accidentally kicking the switch can cause it to break e.g. when loading roof box or attaching bicycle carrier with driver door open and feet on rocker panel.



P91.10-3228-00

Partially electric seat adjustment switch

Heated seats not operating.

Validity: model 171 (with code 873), vehicles produced up to 04/07

Design group: 91.30

Complaint:

Seat heater nonfunctional.

Symptoms:

Seat heater nonfunctional.

Cause:

The seat heating leads at the door side of the seat cushion break as a result of frequent entry/exit.



P91.10-3229-00

- 1 Seat cushion center panel heating element
- 2 Seat cushion side panel heating element
- 3 Main connector
- 4 Secondary connector



DS inserts do not inflate completely**Validity:** model 211, 219**Design group:** 91.10**Complaint:**

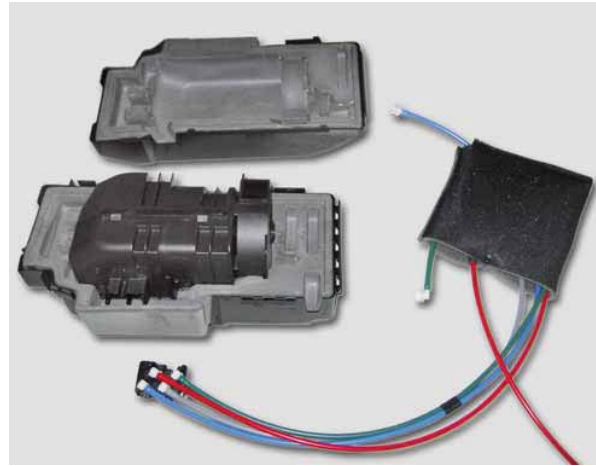
The customer complains that the inserts for the dynamic function do not inflate completely.

Symptoms:

Dynamic seat nonfunctional.

Cause:

Overloaded DS pump.

*DS pump*

P91.10-3230-00

Manual readjustment of multicontour seat (codes 404, 405)**Validity:** model 164, 169, 203, 209, 211, 219, 245, 251 (with code 404, 405)**Cause:**

Dictated by design (production configuration).

Design group: 91.25**Complaint:**

Pressure loss in air cushions when driving for an extended period. The customer has to readjust manually.

Symptoms:

.Multicontour seat nonfunctional.

Air pressure

Repair of pressure lines (dynamic seat, multicontour seat)

Validity: All models with dynamic seat or multicontour seat (with code 404/405, 433/434)

Design group: 91.25

Complaint:

- Dynamic seat nonfunctional
- Multicontour seat nonfunctional
- Pneumatic pump nonfunctional
- Pressure loss in pressurized system

Symptoms:

Dynamic seat or multicontour seat nonfunctional.

Cause:

Pressure lines kinked or chafed through.

Control unit/fault code		
Control unit	Fault codes	Fault text
PSE pneumatic controller unit (model 230, 215, 220)	B 1438 (012)	The safety time has been exceeded for the following pneumatic branch: multicontour backrest.
	B 1438 (013)	Continuous shutoff of multicontour backrest: The safety time was exceeded 5 times.
PFDS dynamic seat pump (model 220)	9250	Pressure build-up not possible due to a leak.
	9251	Pressure loss was detected due to leakage.
PFDS dynamic seat pump (model 211)	9250	Pressure build-up not possible due to a leak.
	9251	Pressure loss was detected due to leakage.



Electrostatic charge on seats**Validity:**

Model 124, 126, 129, 140, 163, 168, 169, 170, 171, 201, 202, 203, 208, 209, 210, 211, 215, 219, 220, 230, 463

Design group: 91.00**Complaint:**

Electrostatic charge on seats.

Symptoms:

Electrostatic charge.

Cause:

Electrostatic charging may occur at low relative air humidity if electric non-conductors rub against each other or are separated. Shoes with insulating plastic or rubber soles increase this effect. This charging cannot be prevented but its effects can be reduced by means of various measures. A vehicle-to-road ground strap will not remedy the problem. Passengers themselves can, however, become charged, especially if the vehicle is fitted with MB fabric or leather-upholstered seats or if the passengers are wearing clothing which causes electrostatic charging.

Pilling (fiber burls) on seat covers**Validity:**

All models with fabric covers

Design group: 91.18**Complaint:**

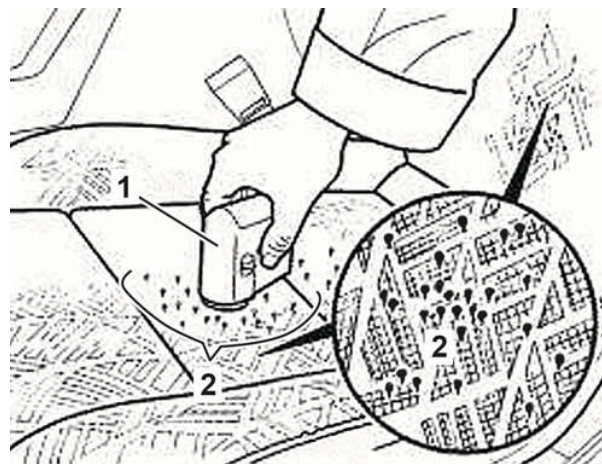
Pilling formation (small fiber knobs) on the seat cover fabric.

Symptoms:

Pilling formation.

Cause:

Fibers detach from the clothing of passengers (external-source pilling) and/or from the fabric of the seat cover (inherent pilling) and form small fiber burls on the surface as a result of sliding motion.



P91.00-2243-00

- 1 Wool razor
- 2 Fiber burls

Seat cover

Yellowing of armrest and seat covers in 2nd seat row (1/3 seat) except on vehicles with leather upholstery

Validity: model 164.120/122/175/186 up to VIN 022 197 (except code U61)

Design group: 91.18

Complaint:

Yellowing of armrest and seat covers of 2nd seat row. Yellowing of the seat covers can occur on the 1/3 seat on the left side of the backrest and seat cushion padding.

Symptoms:

Staining.

Cause:

Amines diffuse out of the foam padding, e.g. through seams, and cause a reaction with the upper paint layer of the PVC of adjacent components (e.g. armrest). This causes yellowing. This reaction only occurs in the dark.



P91.12-3154-00

Armrest yellowing

Threads on cushion covers (code 807)

Validity: model 211 model year 2007 with (code 807 or 140)

Design group: 91.18

Complaint:

The customer complains about long, light-colored threads from the covers of model year 2007 (with code 807). It is primarily the rear seat bench that is affected. However, thread formation may also occur to a lesser degree at the front seats. Imitation leather covers (with code 140) in Artico Twin leather are affected.

Symptoms:

Thread formation.

Cause:

- A change of material for the inlays in the rear seat covers leads to loose threads.
- A change in the diameter of the perforations in the imitation leather cover material leads to loose threads.

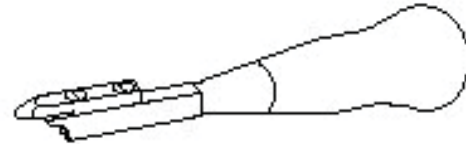


P91.00-2244-00

Thread formation

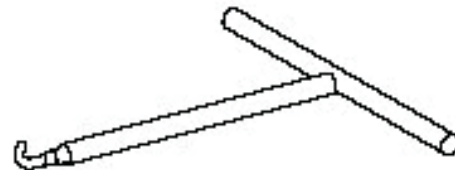
Press-in tool

Valid for	Model 170, 202, 208
Use	Press-in tool for repair work on driver/rear seats for safe installation of plastic clips (A140 988 37 78)
DC number	W202 589 08 63 00
FG	91
Set	K



Removal and installation tool

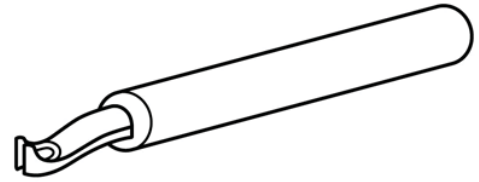
Valid for	Model 168, 208, 209, 211, 230, 639 Model 202 as of 1.08.96 with code (404, 405)
Use	Remove/install upholstery clips and springs on front seat backrest
DC number	W116 589 01 62 00
FG	68/91
Set	B



Seat frame/seat inflators

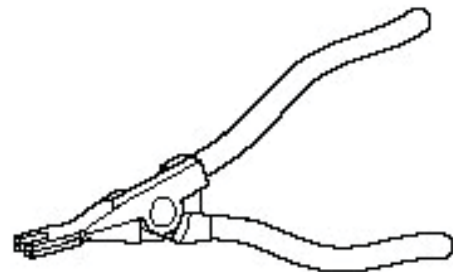
Assembly tool

Valid for	216.3
Use	Assembly tool for hooking/unhooking cable on backrest lock
DC number	W216 589 00 59 00
FG	91
Set	B



Pliers

Valid for	Models 211, 219
Use	Pliers to separate the pneumatic line connections.
DC number	W000 589 04 37 00
FG	91
Set	B



CAK

Crash active head restraints

DAS

Diagnosis Assistance System

EPC

Electronic Parts Catalog

FDS

Dynamic seat

FFV

Fixed-First-Visit

VIN

Vehicle Identification Number

GLC

Global Logistics Center

MCS

Multicontour seat

PES

Polyester

PES/WO

Polyester/wool

PFDS

Pneumatic pump for dynamic seat

PSE

Pneumatic controller unit

PVC

Polyvinyl chloride

SA

Special equipment

SRS

Supplemental Restraint System

SWZ

Special tools

TIPS

Technical Info Pool Service

WIS

Workshop Information System

WSS

Weight Sensing System

C

Cleaning agents	
Leather care foam	24
Textile upholstery cleaner	24
Use	25
Water/dishwashing detergent solution	24
Cut foam	14

D

Dynamic seat	35
--------------	----

E

Equipment matrix	26
------------------	----

F

Felts and lubricants	38
Fixed-First-Visit	38

L

Leather processing	11
Leather quality zones	12
Leather seat system	
Abrasion	13
Creases	13
Soiling	13
Usage	13
Lumbar support	35

M

Massage inserts	35
Multicontour seat	34

N

Noise kit	39
-----------	----

P

Pneumatic comfort system	36, 37
--------------------------	--------

S

Seams and attachment patterns	10
Seat cover groups	14
Seat covers	8
Alcantara	8
Fabric	8
Genuine leather	8
Imitation leather	8
Seat design	6
Soiling	22
Surfaces and grain types	
Alcantara	9
Artico leather	9
Catania leather	9
Cube fabric	9
Lugano leather	9
Nappa Exclusive leather	9

T

TIPS

Air pressure	61
Creases	54
Malfunctions	56
Noises	47
Seat cover	63

U

Upholstery clips	15
Upholstery rails	15
Upholstery seam variants	10
Upholstery structure	7
Backrest padding	7
Cushion cover	7
Cushion padding	7
Cut foam	7
PES non-woven cloth	7
Spacer fabric	7
Upholstery wires	15

