Guarantee

We grant a manufacturers guarantee of 2 years starting from the date of purchase of the door panels or sound system from the dealer.

Within this guarantee period to our choice we either repair or replace free of charge all defects due to material or workmanship.

Exempt from this guarantee are damages due to improper use, wear and tear or damages which have to be led back on wear or interventions by third parties. The guarantee does not cover subsequent damages or such defects that only insignificantly impair the value or the usability of the panels/sound system. The guarantee does not cover damages due to external influences.



Panels with additional or wrong assembly drill holes cannot be returned. These are damages to the panel which cannot be repaired again.



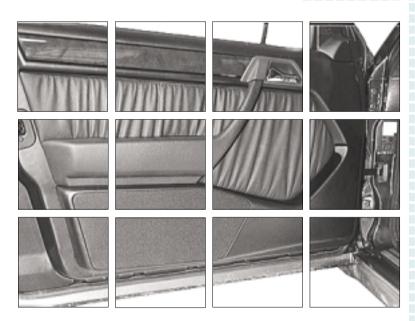
Jehnert Sound Design

Entwicklung und Produktion von Car-Audio-Systemen

Heinrich-Hertz-Str. 11 70794 Filderstadt

Tel.: 0711-77 97 87- 87 Fax: 0711-77 78 921 e-mail: sounddesign@jehnert.de www.jehnert.com

Installation instructions



item-no. 75170

install.no. 75170/FH

2003/by.aj/FH

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Technical information Equipment: mechanical or electric window control Model/ year: W124 - sedan / T-model absolutely necessary!! - see page no. 6 Insulation: Note about setting: To obtain optimal stereoscopic sound, all settings on the radio (bass, treble, loudness etc) should be set to zero or neutral. Recommended amplifier power: from 2x 100 - 200 Watt RMS / 2 Ohm Metal cutwork: not necessary Cut-outs for loudspeaker/ 2 x 144mm (max.outer dimensions subwoofer 165 mm) each side (max.installation depth subwoofer 70 mm) Euro-Norm standard basket ø 6" made to fit Türverkleidung ist rückrüstfähig! Sound-System: 3-ways 2 x 160 mm woofer / side 1 x 100 mm midrange / side 1 x 26 mm tweeter / side car-customized crossover network max.continuous Watt/RMS: 2 x 150/200Watt car specific frequency range: 35-22.000 Hz Total impedance: 2 Ohm Time for Installation car hifi-specialist: 3 hours

We reserve the right to make technical changes, as well as development.

Packing list 75170

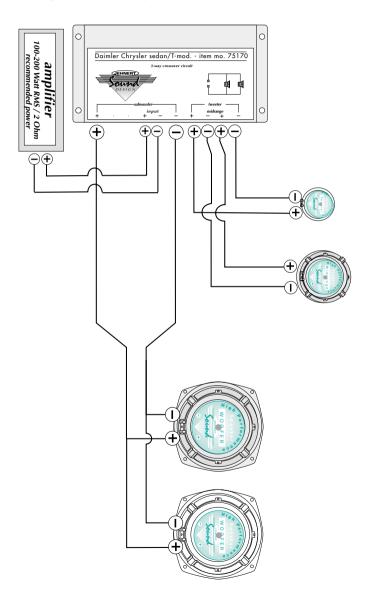
Packing unit	Check list
door panel, covered (right / left)	2
Speaker grill, covered (right / left)	2
Tweeter 26mm mounted (each mounted adapter plate with 6Ktn.screws M4x8 u. washers ø12mm)	2
Midrange 100 mm Q (each mounted adapter plate with 4 Sheet metal-screws)	2
adapter-plate for midrange and tweeter	2
Woofer 160 mm (each mounted on the panel with 2 Sheet metal-screws)	8
Crossover (right / left)	2
Spax-Screw 5,0 x 60Spax-Screw 5,0 x 70	4 4
Hardware bag:	
Spax-Screw 5,0 x 70	4
● Spax-Screw 5,0 x 80	4
Sheet metal screws, black 3,9x13 (f.door-lining+panel)	4
Sheet metal screws, black 3,9x13(f. subwoofer)	8
sockets for plastic dowels f.instal. speaker grill "mount. door build"	
● plastic dowels f. instal. speaker grill "mount. grill"	6
Preassembled hardware:	
Sheet metal screws, black 3,9x13(f. subwoofer)	8
Sheet metal screws, black 3,5 x 13 (8xMR+12xVelcro.)	8

The product was carefully packed and checked for its completeness. If you find anything missing, damaged or defective, please notice our guarantee services on the back of these assembly instructions.

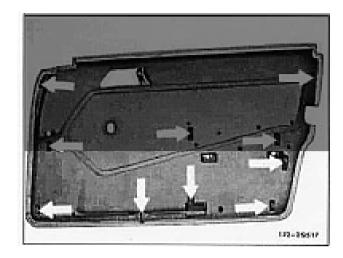
Loudspeaker wiring diagram

Connect all loudspeakers and crossover circuits:

Circuit diagram of 3-way crossover / 2x subwoofer



2. Disassembly of the original tray



- 2.1. place the door lining on a plane surface, backside up.
- 2.2. the original tray is fixed with 2 plastic rivets on the backside of the door lining. Carefully drill them!*
- 2.3. move the plastic holding devices of the tray on the lower edge forward away. Simultaneously lift the tray out of the clamps and remove it.

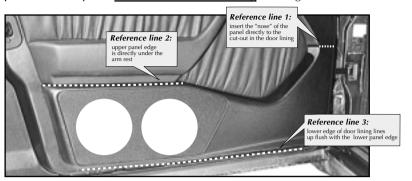
*TIPP: Kartentasche für eine spätere evtl. Rückrüstung aufbewahren.

HINWEIS RÜCKRÜSTUNG:

Die Paneelmaße sind mit der Original-Kartentasche identisch. Dadurch ist eine sehr einfache und problemlose spätere Rückrüstung möglich.

7. Panel installation onto the car doors

7.1. place the door panel on the mounted door lining and align it:



Reference points for fitting:



Only precise alignment of the panel with the door lining warrants optimal fit.

Reference line 1: align the upper panel edge directly under the arm rest.

Reference line 2: upper panel edge is directly under the arm rest

Reference line 3: lower edge of door lining lines up flush with the lower panel edge

7.2. Screw in the screws supplied with, directly through the panel and door lining in the innerdoor metal.

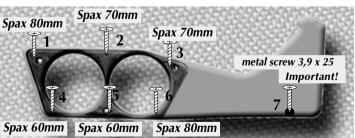
Affix the panel with the door lining - Screw only hand tight.

Attention: do not damage any cables, electric or mechanic parts in the car door

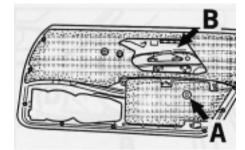
Check again for precise fit and carefully fasten the screws.



All cutting edges of the panel must fit to the door lining snugly all around without gap



4. insulation of the door lining





attention - danger !!

No insulation behind the side-airbags (fig. B)



Important:

No insulation material behind

- loudspeaker
- door latch lever
- (fig. A): drill a hole for the installation clip

fig.: backside of the door lining - insulation with our article no.: 27000



Important tip:

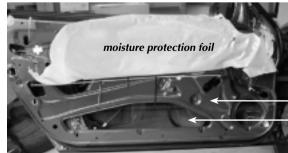
the use of 2x16mm mid-woofer /side may cause vibrations which lead to annoying rattle noises in the car door

some helpful tips:

- use our self-adhesive insulation fleece (art.no.: 27000) or a foam material for the backside of the door lining (see fig. above) or
- stabilize the backside of the door lining by means of a special material (Glass Fibre Filler or stiffening material)

important: keep the cut-outs for the door-airbags and speakers open

- affix the *backside of the inner door metal with self-adhesive asphalt mats (see fig. *)
- by knocking on the car door, vibrations caused by mechanic parts (e.g. Bowden pull wire etc.) and wiring harness may be found out. Cover these parts with foamed material, felt or something like that
- cut off overlapping cable tie (rattle noise)
- adhere felt or foamed material under the original wiring harness



front side of inner door metal

door metal outside = back side of the inner door metal

5. Installation crossover / loudspeaker cables / Installation midrange/tweeter mount dashboard

5.1. Installation crossover:

- 5.1.1. wire the crossover see wiring diagram on page no. 11
- 5.1.2 mount of crossover (our recommendation): under the dashboard or behind the leg room lining on the co-passenger's side

5.2. loudspeaker cables:

- 5.2.1. lead 1 x speaker cable (1,5 4 mm²) from amplifier to crossover
- 5.2.2. car doors: remove the moisture protection foil



Important: to prevent vibration noise tighten all screw on the inner door metal

5.2.3. lead 1x speaker cable (1,5 - 4 mm²) from crossover into the car doors. (see circuit diagram on page 11).



Please observe: the speaker cables must not be squeezed by the window control etc.

5.3. installation of the midrange-tweeter module / mount: dashboard

install the midrange-tweeter adapter instead of the original speaker into the dashboard

- 5.3.1. remove the original speaker's grill. Pry out the grill on the "small" part and unscrew both screws underneath.
- 5.3.2. dismount the original speaker and disconnect the cables (original speaker cable will not be needed any more)
- 5.3.3. lead 2x speaker cables (1,5 4 mm²) for the midrange and the tweeter in the dashboard to the crossover
- 5.3.4. connect the midrange and the tweeter and insert the complete midrange-tweeter adapter to the original cut-out. Reinstall the original speaker grill.

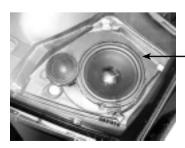


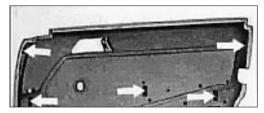
fig.: midrange-tweeter adapter frame Installation- original mount in the instrument panel

6. installation of the door-lining onto the car doors



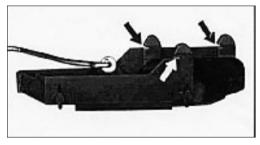
direct panel installation onto the mounted door lining on the car door

6.1. insert the prepared door lining from the top in the plug pins on the window shaft and lead the door lock button into the door lining



Remark: lower fastening hooks for the original tray:

The hooks will not be needed any more. The panel replaces the original tray. With the fastening points on the panel the door lining is affixed to the inner door metal (see page 9)



- 6.2. hang in the linkage on the door handle and insert the inner door metal (3 slots).
- 6.3. affix the inner door handle with screws

TIP: the screw on the handle has a micro capsule. Take a new screw or use a screw locking material

- 6.4. install in contrary order of succession as described on page 3.
- 6.5. Important: Addtional fastening point for the installation of the door lining:

screw the sheet metal screw 3,9 x 25 supplied with through the door lining in the inner door metal in order to affix the door lining to the original upper fastening point of the front tray (see fig.)

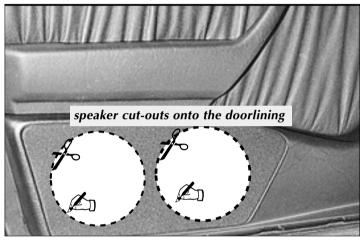
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3. Handling of door lining

Use the precisely aligned panel as template in order to mark the speaker's cut-outs

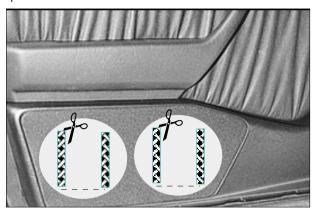
- 3.1. draw the speakers' cut-outs onto the door-lining. size of speaker cut outs and cut outs of the panel are identical
- 3.2. remove the panel again. cut out holes for loudspeakers along the marking with a compass saw (see fig.)



3.3. Dismount the loudspeakers attached to the panel for transport protection. Retain the screws for later assembly.

8. Speaker connection

8.1. In order to improve the acoustic coupling to the door volume cut out the moisture protection foil behind the woofers (like an "U").



Final inspection after panel installation: please check all functions of the operating elements such as seat adjustment, opening of the glove box, window winder etc.

Insert subwoofer and midrange and connect all loudspeakers to the crossover circuit - parallel wiring see diagram on page 11.

Notice: You should check the polarity of all subwoofers before connecting them to the crossover circuit with a 9 volt battery:

> pole of the crossover circuit input (+) to (+) of a 9 Volt battery pole of the crossover circuit input () to () of a 9 Volt battery

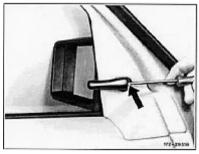
All subwoofers must move uniformly!



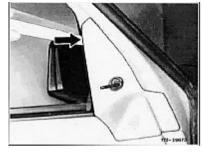
Wrong polarity of a subwoofer can totally equalize the bass sound!

1. Disassembly of the door lining

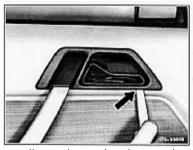
1. roll down window completely



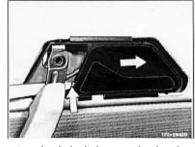
mirror triangle:
 pull away the plastic sleeve and remove
 the handle for the mirror adjustment



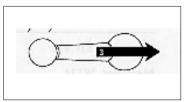
 mirror triangle: unclip the panel on the door frame and pull it away upward



pull away the panel on the inner door actuating device and unscrew the inner screw on the handle



5. unhook the linkage on the door handle and move the inner door actuating device forward and remove it.



6. window crank handle: move the plastic panel (see fig. above) out of the guide slot, move it away from the axle



dismount the trim ring on the door lock. Squeeze the door lining upward away .

Damages on the protection foil of the inner door metal have to be repaired before reinstallation of the door lining.

9. Loudspeaker-Grill

9.1. sockets for plastic dowels - mount onto the door build:

insert the sockets (hardware bag) to the panel recess:

- 6.1.1. set a hot melt adhesive point into the recess.
- Hot melt adhesive hardens very fast. Do not set all adhesive points simultaneously.
- 6.1.2. slightly hammer the socket up to 2mm under the panel surface.



fig. socket for plastic dowel



fig. mounting points for the sockets

9.2. plastic dowels - mount onto the speaker grill:

hammer the thread of the plastic dowels (hardware bag) into the 6mm drill holes (already prepared in the grill):

- 9.2.1. set a hot melt adhesive point into the recess.
- Hot melt adhesive hardens very fast. Do not set all adhesive points simultaneously.
- 9.2.2. hammer the plastic dowels with a 10mm socket wrench



plastic dowel

9.3. Installation loudspeaker grill:

press the plastic dowl of the loudspeaker grill into the mounted socket of the door build.

Removing the grills:

The grills can be removed anytime by carefully lifting them of.



Please, avoid any way of forceful yanking at the grills. It could break!

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Please follow the installation instructions "step by step" and check the package contents

Particularly important notes contain the following remarks:



Technical questions Hotline: 0049-711-77 97 87-87

It is our pleasure to help you!



Mirko Schwarz
Development



Steffen Kretzschmar Saddlery / Completion



Marc Sitter Service

Dear customer,

We have taken great care to explain the procedures in our installation instructions more detailed and "step by step".

Your tips and suggestions help us for the future to eliminate uncertainties and misinterpretation. Therefore, please inform us. what you would like to be improved or what we should still change.

We thank you for your support!

Self-help and fault diagnosis

The following notes serve to help troubleshoot and eliminate faults or malfunctions on your own. If the following measures are not effective, please call us.

What can it be if	possible cause/ solution
it doesn't sound right.	wrong polarity on the subwoofers (→ page 10) crosover circuit attached wrong (→ page 11)
	Doorlining and moisture protection foil not cut out (→ page 5+10)
	amplifier doesn't have enough power(→page 13) amplifier connection
it doesn't fit correctly.	door panel customization (> page 8)
	installation of the panels on the door lining (page 9)
grills do not hold.	observe notes on → page 12!
vibrations	insulation, see notes on page → 6

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