

Installation Instructions Product-Ident: 77237

Rearboards with soundsystem Porsche 997 coupé

Technical Details:

Car Features:	2-doors, only Coupé
Model/Year:	997 (07.2004)
Setup-Advice:	To reach the best performance, the setup of the radio (Bass, Loudness etc.) should be null or neutral.
recommended amplifier power:	from 2x 100 - 200 Watt / 2 Ohm



Parts list:

1x		Rearboards (right+left) Porsche 997 Coupé, covered
1x		grills (right+left) Porsche 997 coupe - rearsystem, cover: acoustic fabrics
2x		XE 26 - Neodymium-Dome Tweeter ø 26mm (1")
4x		XM 165 - Low midrange driver, power woofer ø 165mm (6,5")
1x		2-way frequency crossover (right+left) Porsche 997 coupe - rearsystem - part.no 77237
1x		Hardware bag, Porsche 997 coupe - rearsystem - part.no 77237
10x		flat head srew M4 x 30
2x		flat head srew M4 x 40
16x		hex nut M4
2x		Velcro strip à 2,5 cm (reserve)
4x		washer 12mm
12x		washer 20mm

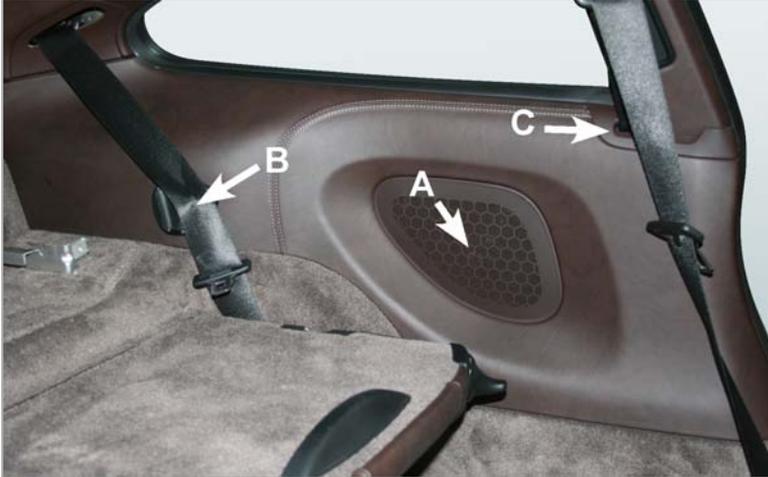
Garantee:

We grant a manufacturers guarantee of 2 years starting from the date of purchase of the doorboard 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 doorboard/sound system. The guarantee does not cover damages due to external influences. Doorboards with additional or wrong assembly drill holes cannot be returned. These are damages to the doorboard which cannot be repaired again.

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1 Disassembly of the side lining

1.1 Carefully pry off the speaker grill **(A)**. Remove the screw TX20 underneath. Remove the speaker.



1.2 Remove the back rest adjustment **(B)** (hexagonal screw HW6).

1.3 Carefully loosen the side lining - in the region of the door lock, Pry out the belt cover **(C)** carefully. Remove the screw TX15 underneath.



1.4 First pry off the side lining horizontally then move it upward away.

1.5 Disconnect the original loudspeaker plugs.

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2 Handling of the side lining: Rearboard alignment / fastening points

2.1 Place the side lining on a plane surface.

2.2 Dismount the woofers attached to the rearboard for transport protection --> retain the screws for later assembly. **(The tweeter keeps the original position).**

2.3 Place the rearboard without woofer on the side lining and align it:



⚠ Only precise alignment of the rearboards with the side lining warrants optimal fit!

Reference points for alignment:

2.4 Reference point 1- carpet edge:

The bottom edge of the rear board **(1)** is parallel with the carpet edge, overlapping approx. 2-3mm.

2.5 Reference line 2

The edge of the rear board **(2)** is parallel with the wheel arch with a distance of approx. 2mm.

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3 Handling of the side lining

3.1 Use the rearboard as template in order to mark fastening points and cut-outs:

 **Precisely align the rearboard with the fixing points of the side lining.**

4 Marking of the fastening points

4.1 Mark the fixing points 1+2 premounted in the rearboard:

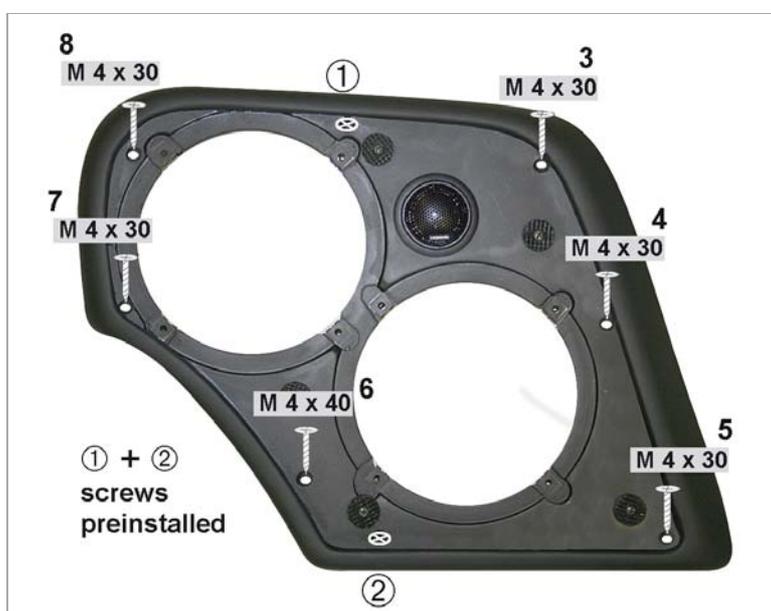
Press the rear board onto the side lining and use the now visible marks of the screws to position the fastenings on the side lining.

Marking of the pre-drilled fastening points 3-8:

Use a thin awl to set the marks on the side lining.



Example

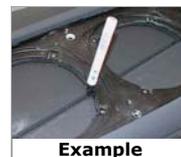


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5 Handling of cut-outs of the side lining.

The cut out behind the speakers are providing the required full volume of the side part.

5.1 Mark the cut-out acc. to figure.



Example

5.2 Mark the cut outs for the woofers on the side lining. Enlarge the cut outs by approx. 1cm (= approx. outer diameter of the woofers).

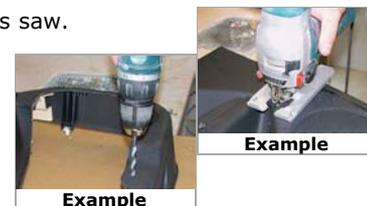
⚠ IMPORTANT! Check all cut-outs marked:

🔧 The fastenings of the rearboard must have to be screwed with the side lining.

🔧 The fastenings of the side lining must not be removed!

5.3 Remove the rearboard again and cut out the positions marked on the side lining. Use a compass saw.

5.4 Drill the bore holes for the screws according to the marks set before - use a 4mm drill and enlarge to 7-8mm



Example

Example

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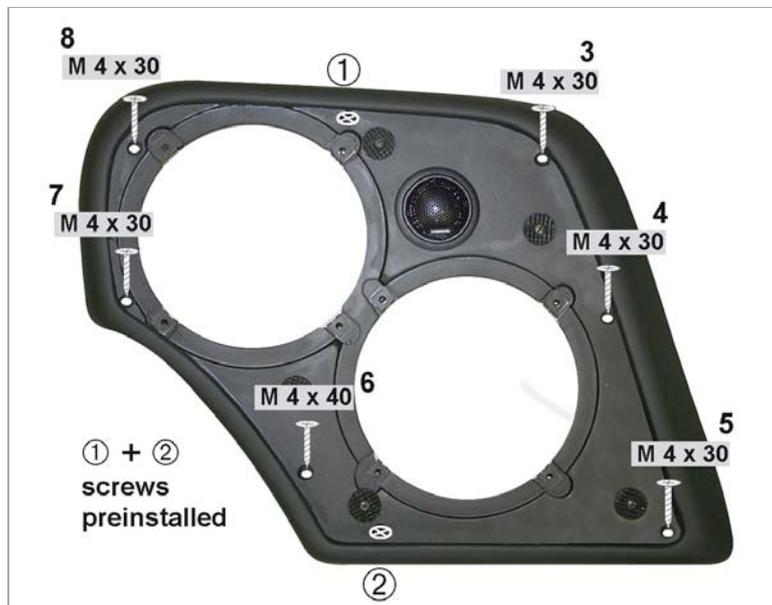
6 Fastening of the rearboard

6.1 Screw in the M4-screws supplied with. Affix the rearboard to the side lining. Screw all M4-screws only hand-tight. Secure all screws with washers and nuts.

TIP: Treat the screw thread with a liquid for screw-in type fuse. (Speaker vibrations may loosen the screws after some time)



Example



6.2 Check again for precise fit and tighten the screws.

🔧 All cutting edges of the rearboard must fit to the side lining snugly all around without gap!

7 Adaptation amplifier - crossover circuit / Insulation of the car side parts

7.1 🛠️ **Insulation of the car side parts** - Important tips against vibration-noise (see attached installation recommendation)

7.2 Adaptation amplifier - crossover circuit:

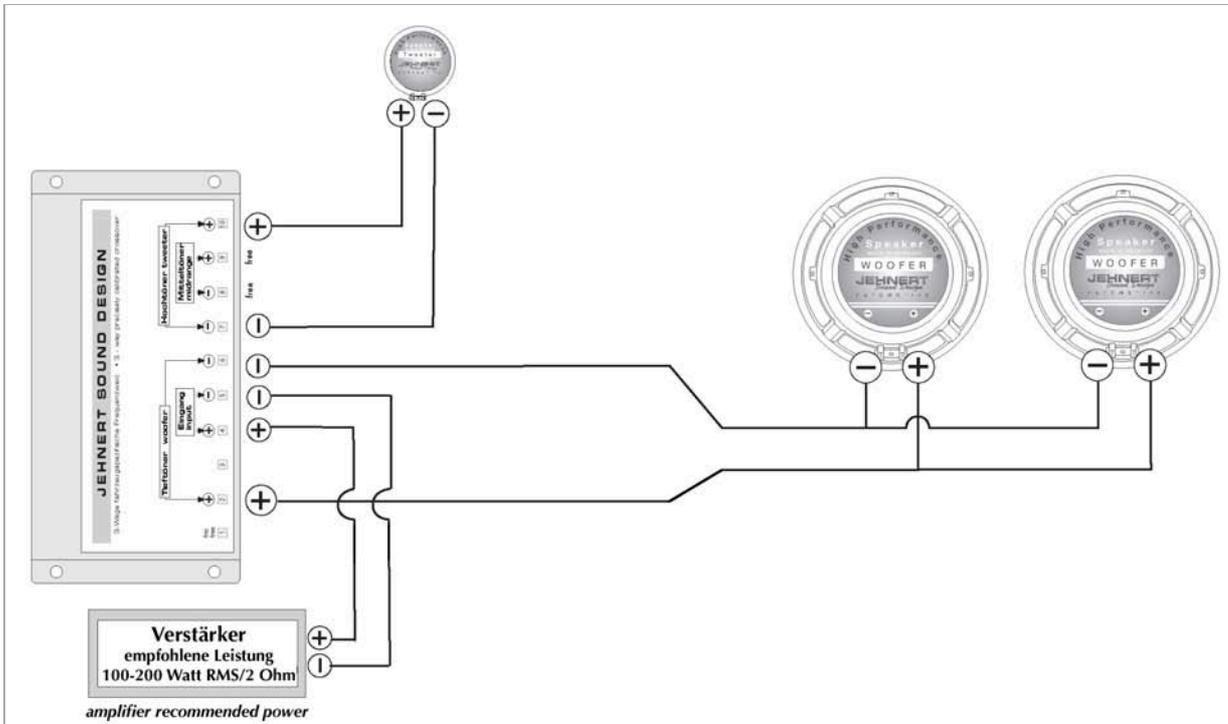
Lead 1x speaker cable (1,5 - 4 qmm) from amplifier to the crossover circuit:
 mount of crossover circuit: side lining / behind the rearboard

🛠️ **In order to avoid vibration noise secure all cables with insulating tape e.g.**

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8 Installation of crossover circuit

8.1 Precable crossovers - see wiring diagram.



8.2 Install crossover – covered with foamed material - in the hollow space between rearboard and side lining (see fig.) and ensure precise fit.



8.3 Connect all speakers to the crossover circuit according to the wiring diagram.

8.4 Insert woofer.

8.5 Notice: You should check the polarity of all woofers after having connected them to the crossover circuit with a 9 volt battery (input cable on the side of the amplifier):

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 woofers must move uniformly!

👉 Wrong polarity of a woofer can totally equalize the bass sound!

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9 Installation of the side lining

9.1 Check up lengths of the screws and bolts:

In order to prevent damages of mechanic parts of the car side parts, please check once again the lengths of all bolts and screws on the back side of the side lining! No touch with any mechanic parts of the car side parts!

(please shorten if necessary)

9.2 Fit the side lining in contrary order of succession.

10 Installation of the rearboard grills

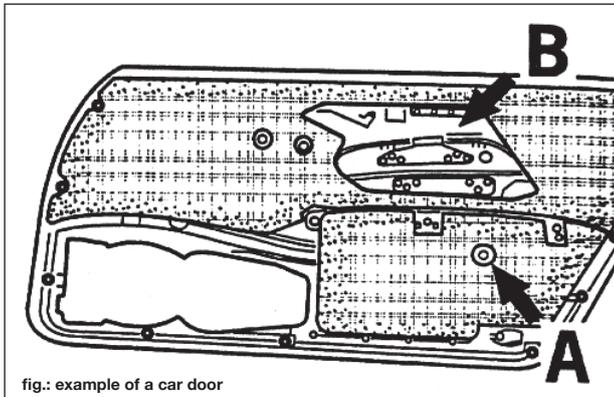
10.1 Carefully press grill with Velcro fasteners onto the rearboards:

 **IMPORTANT: The Velcro fasteners stick very strongly!**

Therefore only press the grills to the rearboard at the end of the installation of the rearboard and the soundsystem!

10.2  Further tips see attached installation recommendation.

Insulation of the door lining



Attention / Danger !!!
No insulation behind
the side-airbags (fig. "B")



Important:
No insulation material behind
 - loudspeaker
 - door latch lever
 - drill ahole for the installation clip (fig. A)

Important tip:

the use of woofer in the door lining may cause vibrations which lead to annoying rattle noises in the car door

Preventive measurements against vibration noise:

- 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



fig.: example of a car door

front side of
 inner door metal

door metal outside
 = back side of the
 inner door metal

Installation of the speaker's grill

Precisely align and carefully press grill into the Velcro fasteners.

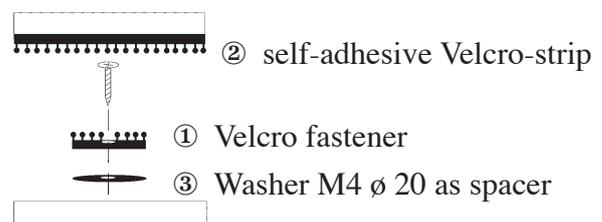
 **The Velcro fastener makes a crackling sound when it is closed correctly.**

Our Tip:

If the panel cannot be pressed on completely at some points. . .

Cause: the special form at these points and the resulting differences in material cross section of the grill.

Solution: the distance can be levelled out with spacers ③ under the Velcro disc.
(Spacers included with the screw kit)



6. Removing the grills:

The Velcro fasteners stick together very strongly! The grills can be removed anytime by carefully lifting them off. Please, avoid any way of forceful yanking at the grills. It could break!

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. **Info-Hotline Tel. 0049-7158/95699-0**

What can it be if ...	possible cause/ solution
...it doesn't sound right	<ul style="list-style-type: none"> · wrong polarity on the subwoofers (see „speaker connection“) · crossover circuit attached wrong (see „wiring diagram speaker connection“) · door lining and moisture protection foil not cut out (see. „installation of the door lining“ and „installation of the speakers grill“) · amplifier doesn't have enough power (see. „technical details“) · amplifier connection
...it doesn't fit correctly	<ul style="list-style-type: none"> · door panel customization (see „handling of the door lining“) · installation of the panels on the door lining
.....grills do not hold	observe notes (see „installation of the speakers grill“)
vibrations	observe notes (see „insulation of the door lining“)