

## Marco Polo 447

Front- and Rear system

## Assembly instruction

Status: 18.10.2023

Art.-No. 69755-82 / 69751-82

**JEHNERT**  
*Sound Design*  
AUTOMOTIVE

### Front & rear system (69755-82 / 69751-82) incl. subwoofer and amplifier and optional accessories



#### Packing list sound package 1 69755-82:

2x „XE 26A“ tweeters (front & rear)  
2x vehicle specific tweeter crossovers (jacketed)  
2x „XM165“ Power Woofer (Front)  
2x Marco Polo specific mounting rings for „XM165“  
2x 2-way woofer crossovers for front system (rear side covered with felt)  
1x 200mm quadcoil subwoofer (Marco Polo specific) incl. mounting brackets  
1x subwoofer connection cable 3.3m „plug&play“  
1x digital high-performance amplifier  
1x amplifier connection cable 2.2m „plug & play“  
1x „plug & play“ adapter for original Mercedes radio  
1x plug & play crossover for volume reduction center speaker

#### Additionally included in sound package 2 69751-82:

2x 120mm coaxial speaker incl. mounting ring  
(consisting of 1 part and plug & play connector)



#### Optional accessories:

- Bluetooth function integrated in amplifier
- Rocker switch
- Remote control to control the subwoofer and to regulate the sound setup
- Extension cable for the control module of the sliding door

#### Mounting set:

Tweeter: Tweeter mounting kit  
2x insulation fleece cut

woofer: 8x lens head 3,9 x 16

subwoofer: 1x 14x25cm insulation fleece  
for canbus module  
2x cable ties 36cm length  
1x piece of felt 12 x 8cm (self-adhesive)  
2x self-tapping screws 3,9x16



amplifier: 8x Velcro dots



Optional insulation package for subwoofer:

2x Alubutyl, thickness: 3mm,  
4x Alubutyl, thickness: 1,5mm,  
2x damping fleece  
2x Rainstop

## **General installation instructions - must be observed!**



### Power supply:



The amplifier must be supplied with a separate power supply to the body battery with a cable cross-section of 10mm<sup>2</sup> and a fuse protection of the amplifier with 30A.



### Radio settings:

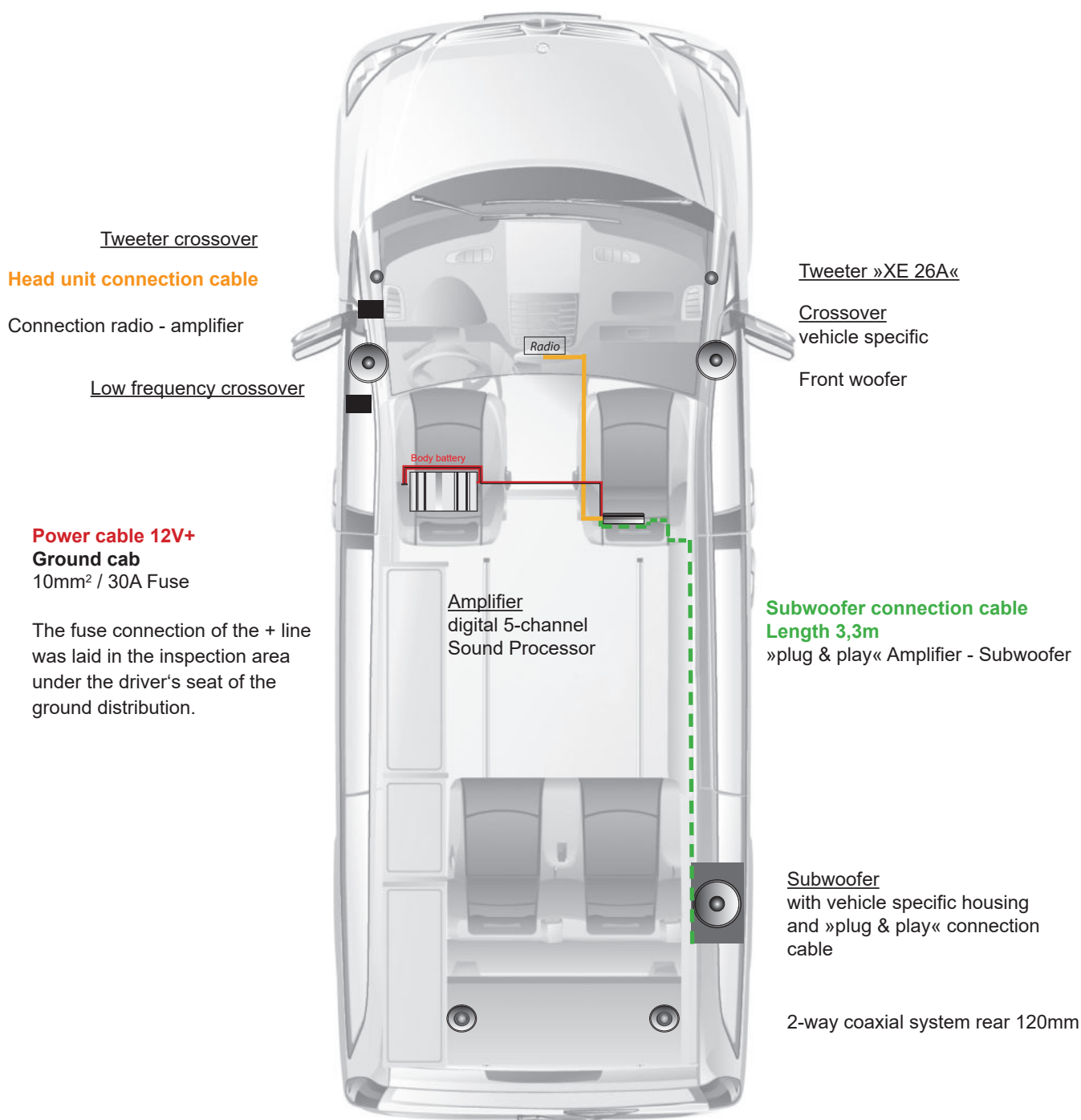


To achieve the best sound, all settings on the radio (bass, treble, loudness, equalizing, etc.) should be set to ZERO or OFF.

### Installation Notice:

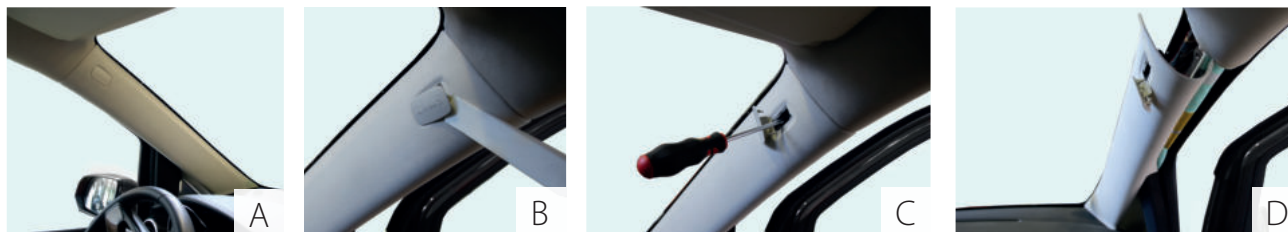
To avoid vibration noise, secure all cable harnesses with insulating tape or similar.

## Cable routing / connection scheme



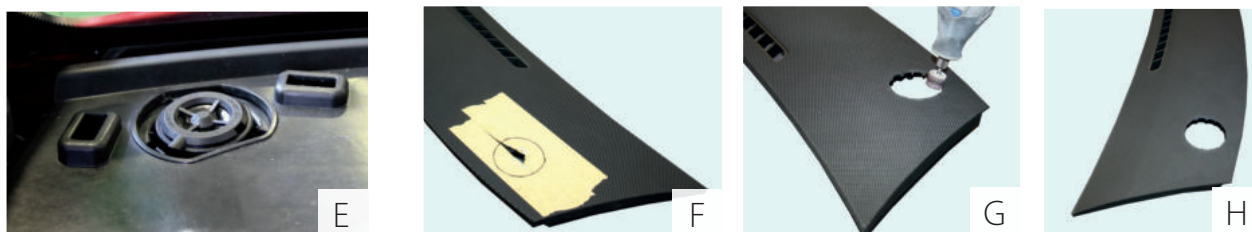
## 1. tweeter mounting

### 1.1 Disassembly of the A-pillar

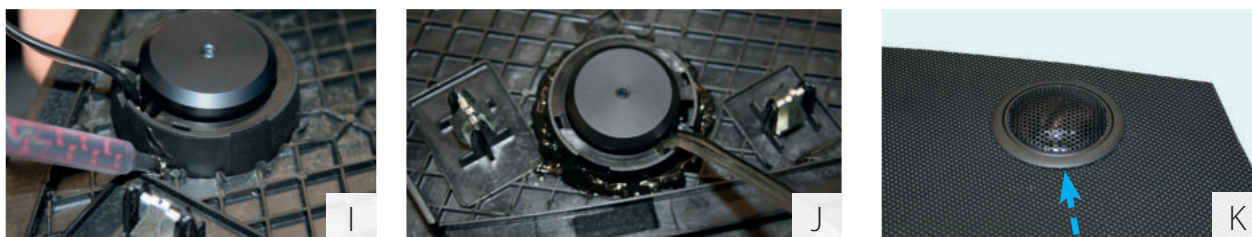


- Remove the A-pillar on both sides to be able to dismantle the front grilles.

### 1.2. Hochtöner Vorbereitung



- Remove the front grille on the dashboard
- Unplug and remove original tweeter (installed in dashboard).
- Tape off front grille in the area of the cutout (important to avoid damage!)
- Mark the cutout (position is exactly in the center of the factory speaker opening)
- Cut out the pre-drawn opening (e.g. with a conical drill and Dremel).



- Glue the tweeter to the back of the front grille to secure it in place and let dry

**Note:** The visible side of the tweeter should be flush with the grille.



- Route original connection cable under dashboard to A-pillar and connect factory tweeter cable with crossover- input
- Connect crossover with tweeter
- Route crossover under dashboard and mount front grille (left and right)
- Disconnect factory center speaker and mount center front grille
- Then mount the A-pillars again



## 2. woofer mounting „front“ in the vehicle doors

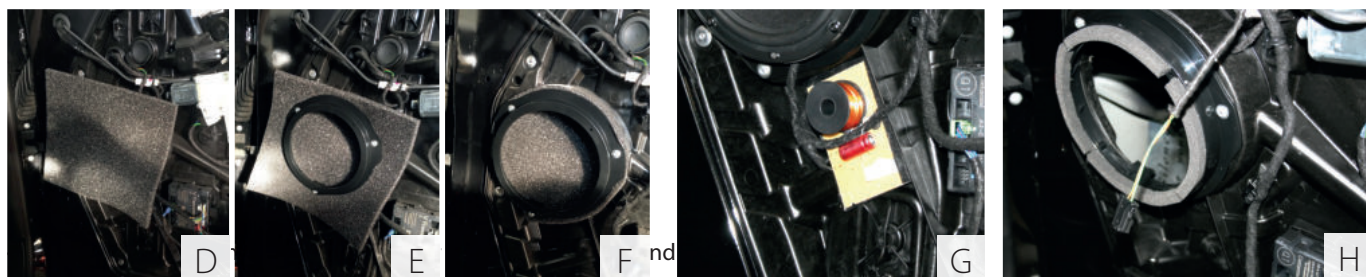
### 2.1. disassemble door panel



- Remove door handle
- Loosen 7 screws (see Fig. B and C)
- Unclip door panel - remove all plugs and the locking cable

### 2.2. woofer mounting

- Insulate the back of the door panel with insulating fleece
- **Recommendation (optional):** Insulate the inside of the door (body) (behind the original speaker opening) with Alubutyl.



- Cut Rainstop to size and mount woofer adapter (Fig. D and E).  
(Optimal: tape front & back of ring with compression tape --> avoids vibration noise)
- Cut off protruding Rainstop around woofer adapter (Fig. F)
- Mount crossover to vehicle doors (see fig. G); collar screw 3.9 x 16mm
- Connect original connection cable (see fig. H) of woofer with crossover input  
(green cable = plus, green/brown cable = minus)
- Drill a hole in the woofer adapter from below for the connection cable.
- Lead the connection cable from the crossover to the woofer through the hole
- Connect the Jehnert woofer (see fig. I)
- Mount the door panel with the original screws



## 3. disassembly seats - headliner - side panel

### 3.1 Dismantle seats

- **Disconnect all plugs from the seats!**
- Remove the driver and passenger seats from the vehicle.
- Remove seat consoles
- Remove rear seat bench (pay attention to the plugs here as well!)

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### 3.2 Remove headliner



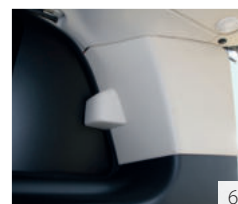
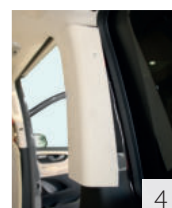
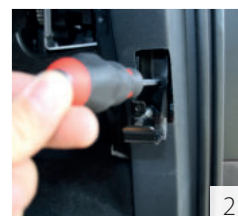
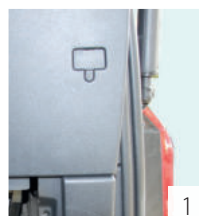
- Remove the 3 roller blinds in the rear area
- On the inside of the cabinet, remove the sheet metal clip (see fig. A)
- Remove the plastic trim from the rubber seal
- Disconnect the lighting cables from the switch (2 pieces)
- Loosen 5 screws under the mattress (lift bed) (see fig. C)
- Dismantle the plastic cover on the tailgate (top)



- Pull the headliner down; caution: headliner is connected with 3 clips  
(Recommendation: remove headliner with 2 persons)
- Disconnect interior lighting and PDC
- Remove the headliner from the vehicle

## 3. disassembly seats - headliner - side panel

### 3.3. remove side panel (passenger side)



**Loosen all screws (see Fig. A):**

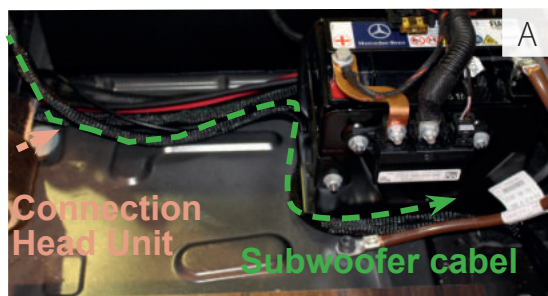
- Loosen screws (Fig. 1, 3 and 5).
- Remove release (Fig. 2):
  - Remove small cotter pin on left side (see Fig. 2)
  - Pull off rotating mechanism to the outside
  - Remove screws and plastic cap
- Loosen 2 screws on metal holder
- Remove metal holder
- Remove cladding (Fig. 4 and 6)



- Carefully release the side panel from the rubber seal and unplug any connectors
- Unclip the side panel



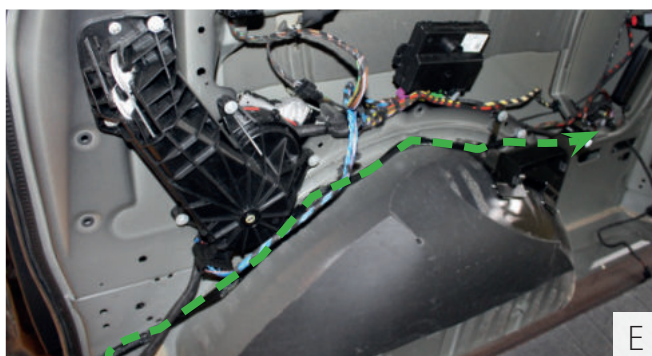
## 4. cable routing subwoofer (passenger seat - rear side panel)



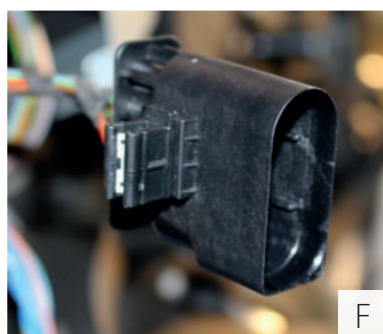
- Route subwoofer connection to side of battery through seat console.
- Subwoofer mounting location: passenger side in the rear, behind the side trim (see floor plan page 2 for cable routing).



- Lay the subwoofer cable on the side of the B-pillar, then route it under the wooden floor along the entrance and secure it additionally with adhesive tape (on the entrance).



- Run the cable up to the wheel housing and along above the wheel housing to the subwoofer connection point.

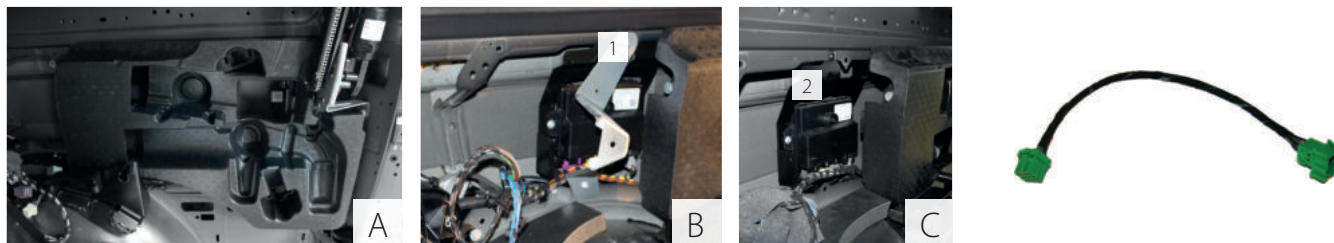


- Remove Delphi connector from the body (unclip)
- Then cover plug with felt to avoid vibration noise



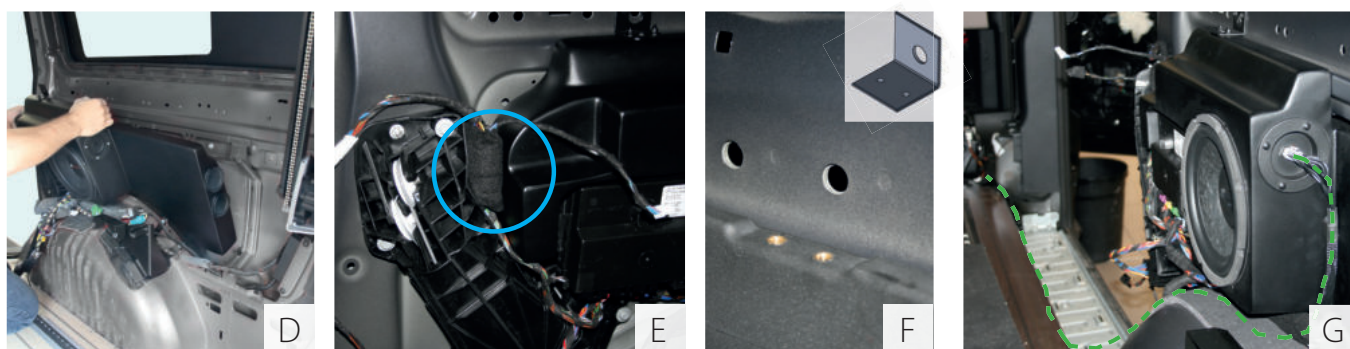
## 5. subwoofer mounting

### 5.1 Preparations



- Remove styrofoam insert (jack and trailer hitch).
- Remove all metal brackets (1 & 2) so that the subwoofer can be inserted.
- Remove sliding door module, disconnect all plugs to do this. If necessary, the cable (with green plug) must be extended by 35cm (until year of construction 03.2018 →)

### 5.2 Mounting the subwoofer

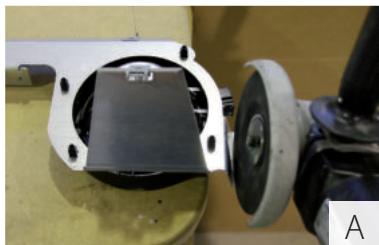


- The subwoofer connection cable has already been routed according to the description on page 8.
- Insert the subwoofer into the rear wall of the car body. Press the lower edge first, then the upper edge against the body.  
To avoid vibration noise, secure all cable harnesses with felt/insulating tape or similar.  
Ensure that the wiring harnesses, Delphi connectors and control module are protected against vibration. Please always ensure that the side panel can be refitted.
- Secure the Delphi connector against vibration and clamp it to the left of the subwoofer (see Fig. F).
- Align the subwoofer to the mounting points and fix it by means of the Self-tapping screw 3.9 x 16 and the corresponding safety washer at the existing thread of the car body



- Connect subwoofer cable to terminal of subwoofer (rear side).
- Mount and connect door and tailgate control module in existing recess of subwoofer.
- Entry strip and side panel can be mounted again

## 6. mounting rear system



- Drill out the rivets of the metal strip on the headliner



- Insulate the back of the roof lining with insulation fleece



- Mount the JEHNERT loudspeaker with the supplied mounting set.



- Align the metal rack on the back of the headliner
- Fix the frame with the aluminum angle
- Then mount the headliner (recommendation: 2 persons)

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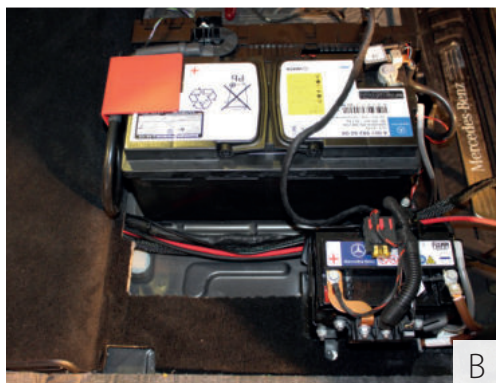


## 7. power supply amplifier (and optional remote switch).

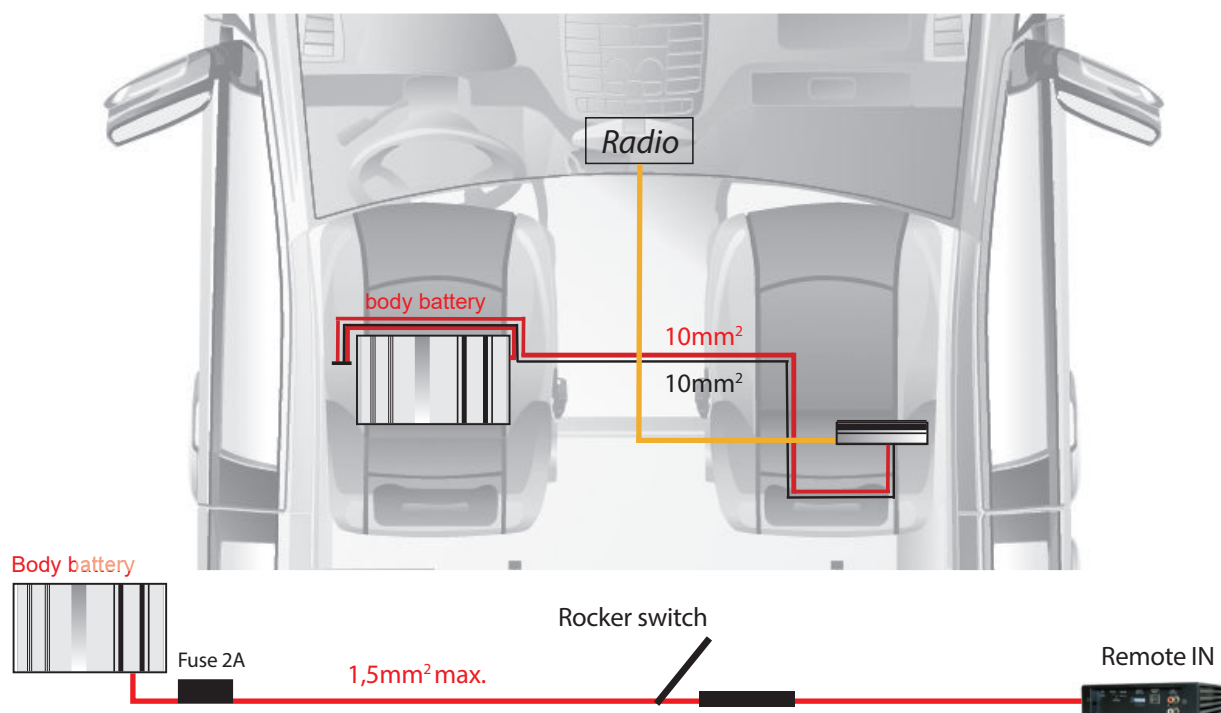


To ensure optimum adhesion of the Velcro pads, we recommend pre-ringing all adhesive dots (e.g. thinner).  
 The adhesive surface of the Velcro dots is increased to the optimum by heating and a contact pressure of 2 seconds.

### 7.1. power supply amplifier



- Route power and ground cables from body battery (under driver's seat) under passenger seat (power supply to amplifier).
- Connect all cables to the amplifier (power/ground, speaker input & output, subwoofer cable)
- Route power and ground cable from body battery to Bluetooth module / rocker switch
- Fix cable adaption under the seat console
- After completion of the amplifier assembly (power connection) plug in the fuse
- The remote switch, which controls the Bluetooth module, is fused with 2A



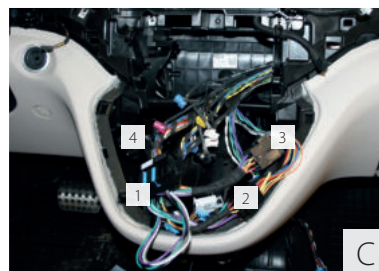


## 7. power supply amplifier (and optional remote switch).

### 7.1 Disassembling the center console

- Unplug Westfalia on-board computer
- Take out cup holder (remove screws)
- Loosen side screws and disconnect connectors
- Pull console back and remove

### 7.2 Disassemble the radio



- Remove the lower plastic cover (see Fig. B) and loosen the 4 screws underneath (see Fig. C).
- Disconnect and remove touch panel
- Loosen 2 screws on the monitor to be able to remove it



- Remove ventilation nozzles (Fig. D; 1-3) with unlocking tool (Fig. E) and loosen the screws below them
- Pull off complete decor panel to the front and disconnect all plugs
- Undo 2 screws on radio, remove radio and disconnect all plugs

### 7.3 Cable preparation (ISO cable)



- Pull ISO cable through radio slot, center console to under passenger seat



**Optionales Zubehör!**

- (Optional: Run the cable for controlling the subwoofer from the center console (see Fig. G) to under the passenger seat as well.

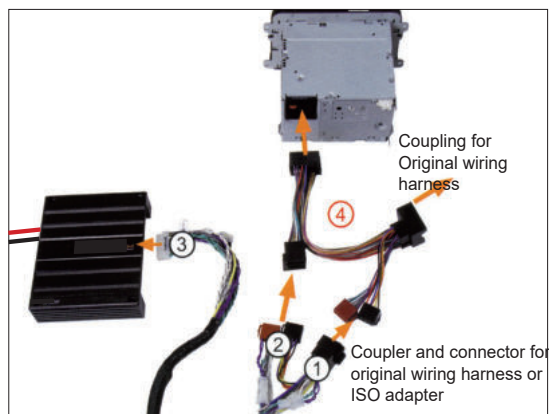
## 8. connect radio

The amplifier must be supplied with a separate power supply and ground to the body battery (under the driver's seat) with a cable cross-section of 10mm<sup>2</sup> and a fuse rating of 30A.

The power and ground cable as well as the loudspeaker input and output are provided ex works (laid by Daimler ex works) under the passenger seat.

### Amplifier connection »High power amplifier:

#### 1. connection to the car radio

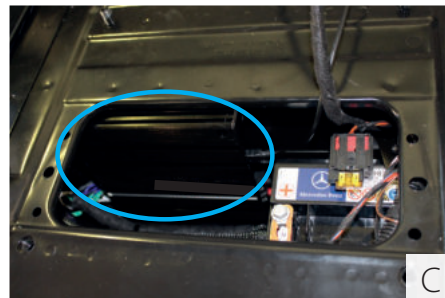
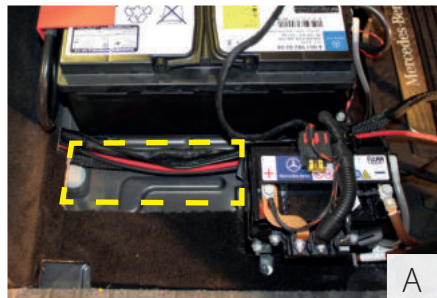


- ISO coupling - the wiring harness of the original radio or an ISO adapter is plugged in here.
- ISO plugs - these are plugged into the original radio or ISO adapter.
- This 20-pin connector is plugged into the amplifier.
- **Optional:** ISO adapter - if the ISO connectors of the supplied wiring harness do not fit the original radio, a vehicle-specific ISO adapter must be used.

The power connection is made directly to the battery using a 10mm<sup>2</sup> cable - the positive wire must be fused just before the battery (60A).

- Reinstall / mount all dismantled parts (on-board computer, cup holder, plastic cover, etc.)

## 9. amplifier mounting



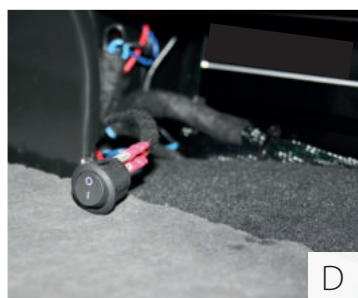
- Cut out a piece of carpet (height 50cm) (see Fig. A).
- Connect short power cable (approx. 40cm) 1,5mm2 to remote IN of the amplifier; the end is connected to the remote switch
- Stick amplifier to seat console (passenger side) with supplied velcro plates --> make sure seat fits back in!
- Put in the seat console (do not fix it yet!)
- Connect all cables and check a secure hold
- Provide power supply for amplifier and remote with a fuse holder (do not insert fuse yet!)
- Secure fuse holder with cable ties or velcro dots
- Secure / fasten remaining cables with cable ties
- Afterwards the seat consoles can be mounted (fixed)
- After fixing, mount the seats again

### Optional: Remote control to control the subwoofer and sound setups:

- Fix the remote control for controlling the subwoofer with 4 screws

**Optional accessories!**








## 10. install remote switch



Cable routing see page X

- Drill an approx. 20mm hole in the plastic trim of the seat console (rear) (measure/check the Ø of the switch!)
- Connect 2x 1,5mm2 to switch and put it through the hole (see fig. E)
- Mount the plastic trim again

- Insert the fuse into the holder. The sound system is now fully functional.

<b>Marco Polo 447</b> Front- and Rear system	<b>Assembly instruction</b> Status: 18.10.2023 <b>Art.-No. 69755-82 / 69751-82</b>	
<h2>Notes</h2>		
<p><b>Warranty:</b>          As the manufacturer, we warrant these sound systems for 2 years from the date of purchase from the dealer.          Within this warranty period, we will, at our option, repair or replace free of charge all defects that are based on material or manufacturing defects. Excluded from the warranty are damages caused by improper use or installation, wear and tear or interventions by third parties. The warranty does not cover consequential damage or defects that only insignificantly impair the value or usability of the sound systems. A warranty obligation is not triggered in the case of damage caused by external influences. Systems with additional or incorrect mounting holes are excluded from exchange. These are damages to the components that cannot be repaired.</p>		
<p>Our team in Pliezhausen will be happy to provide you with advice and assistance at any time:</p> <p><b>JEHNERT Sound Design</b>          »Development and production of car audio systems«</p> <div> <div> <p>Owner: Hans-Peter Jehnert            Im Michelreis 14            72124 Pliezhausen            Phone: 07127-93457-0            Fax: 07127-93457-10            sounddesign@jehnert.de</p> </div> <div>    </div> <div>    </div> <div>    </div> </div>		