

HIGH PERFORMANCE SOUND SYSTEM

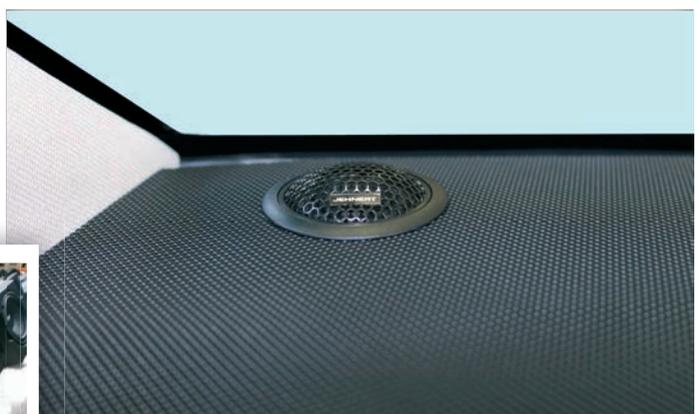
PRODUCT INFORMATION



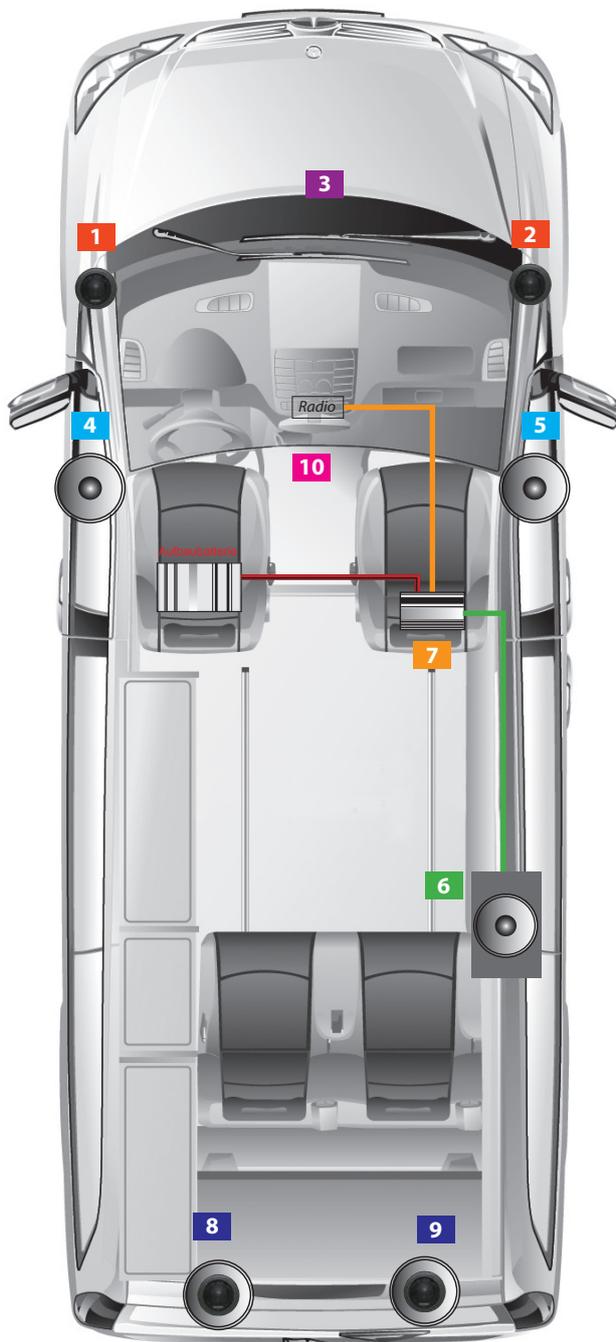
Mercedes
MARCO POLO



Sound and design perfectly integrated!



Sound system arrangement in »Marco Polo«:



1 2

Two acoustically precisely aligned Jehnert „XE26A“ tweeters incl. vehicle-specific crossovers on the dashboard create a spatial and harmonious sound stage for the driver and front passenger

3

factory center speaker

4 5

The factory 165mm woofers in the driver and passenger doors were replaced by 165mm JEHNERT Power Woofer for sampling and provide for a good fundamental tone in the low frequency range

6

A custom-fit Marco Polo - subwoofer perfects space-saving in the cavity of the rear side panel the sound system to a fascinating dynamic sound package!

7

An extremely powerful 5-channel digital DSP amplifier under the passenger seat drives the sound system with impressive power. The actively calibrated Marco Polo sound setup also provides „fine tuning“ and precise frequency responses

8 9

Two 120mm coaxial speakers replace the factory rearsystem and complete the sound system with perfect surround sound

10

Subwoofer control and setup switch to control subwoofer intensity and switch between driving and living mode

Wiring:

ISO connection cable: Connection radio - amplifier

Power cable 12V+: 10mm² / 30A Fuse

Ground cable: 10mm²

Subwoofer connection cable: »plug & play« Amplifier - Subwoofer

Product overview:

Product:	Specification	Mounting location																								
<p>2-way front system</p> 	<p>2 x 26mm neodymium softdome tweeter »XE26A« incl. passive 12db-crossover and plug&play connection cable</p> <p>2x 165mm Power Woofer »XM165« incl. mounting ring and woofer crossover</p> <p><u>Technical data tweeter // woofer:</u> Diameter / depth: 28 x 25 mm // 165,6 x 66mm Continuous load capacity: 200 Watt * (@ 4 kHz) // 70 Watt Transmission range: 2000 - 22.000 Hz // 49 - 5.000 Hz Impedance: 4 Ohm</p>	<p>Dashboard</p> <p>Vehicle doors right & left</p>																								
<p>Bass Reflex Subwoofer</p> 	<p>»Marco Polo« specific design incl. 1x 200mm subwoofer with quadruple bass voice coil</p> <p>- deep, rich bass reproduction with „anti-drone circuit“ incl. 3.3m »plug&play« subwoofer cable</p> <p><u>Technical data subwoofer:</u> Power RMS / Max: 200 / 400 Watt Efficiency: 87 dB 1W / 1m Impedance: 4 x 3 Ohm</p>	<p>next to seating group in cavity of the rear side panel (passenger side)</p>																								
<p>2-way rear system</p> 	<p>2-way coaxial system 3 Ohm 70 WRMS</p> <p>Coaxial system with fiberglass cone in 120mm standard chassis and 13mm fabric neodymium tweeter.</p> <p>Installation dimensions: 115mm, outer diameter: 120/150mm Impedance: 3 Ohm Installation depth: 54 mm</p>	<p>Factory installation location Rear area side panel</p>																								
<p>The turbo for the sound system!</p> 	<p>digital 5-channel amplifier / sound processor incl. vehicle specific sound setup</p> <p>- pre-installed sound setup »Marco Polo« (delay correction, equalizing, etc.)</p> <p>- »plug & play« ISO cable as well as Quadlock cable for connection to factory Mercedes radio</p> <table border="1"> <thead> <tr> <th colspan="2">Technical data</th> </tr> </thead> <tbody> <tr> <td>Power RMS / Max into 4 ohms:</td> <td>8 x 55 Watt / 110 Watt</td> </tr> <tr> <td>into 2 ohms:</td> <td>8 x 70 Watt / 140 Watt</td> </tr> <tr> <td>Frequency range:</td> <td>20 Hz - 22.000 HZ</td> </tr> <tr> <td>Number of inputs:</td> <td>4 x Highlevel 1x Aux 1x Optical</td> </tr> <tr> <td>DSP Resolution:</td> <td>56 Bit</td> </tr> <tr> <td>DSP processing power:</td> <td>172 MHz</td> </tr> <tr> <td>Distortion factor:</td> <td>< 0,02 %</td> </tr> <tr> <td>Signal-to-noise ratio:</td> <td>> 100 dB</td> </tr> <tr> <td>Attenuation factor:</td> <td>> 50</td> </tr> <tr> <td>Input impedance:</td> <td>30 Ohm</td> </tr> <tr> <td>Dimensions (H x W x D):</td> <td>44 x 185 x 164 mm</td> </tr> </tbody> </table>	Technical data		Power RMS / Max into 4 ohms:	8 x 55 Watt / 110 Watt	into 2 ohms:	8 x 70 Watt / 140 Watt	Frequency range:	20 Hz - 22.000 HZ	Number of inputs:	4 x Highlevel 1x Aux 1x Optical	DSP Resolution:	56 Bit	DSP processing power:	172 MHz	Distortion factor:	< 0,02 %	Signal-to-noise ratio:	> 100 dB	Attenuation factor:	> 50	Input impedance:	30 Ohm	Dimensions (H x W x D):	44 x 185 x 164 mm	<p>under the passenger seat</p>
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	<p>Control for subwoofer controller and setup switch driving and living mode</p>																									
	<p>Bluetooth Receiver (optional)</p>	<p>under the passenger seat</p>																								

On the road traveling and not doing without anything

Enjoy music and forget about everyday life. Especially on vacation is the best time to do this.

The 2-way sound system for the driver's cab guarantees high quality and first-class listening pleasure. Powerful 165mm Jehnert power woofers replace the factory speakers in the vehicle doors and provide a spirited sound. Two high quality 26mm soft dome neodymium tweeters integrated on the dashboard offer crystal clear highs in an optimal listening position.

The digital 5-channel amplifier also allows the sound system to be expanded in the rear of the vehicle. Two 130mm coaxial speakers in the rear area provide the ideal surround sound supplement. The power-saving 5-channel amplifier with the latest 56-bit DSP technology and a bass reflex subwoofer provide impressive sound dynamics that will delight music lovers.

Thanks to the Bluetooth module and the possibility to switch the sound setup, the sound system can be used optimally in standby mode without switching on the head unit, so that optimal listening pleasure is possible at any time.

Vehicle acoustic measurements in the »Marco Polo«

Even the highest quality loudspeakers are severely limited in their performance and sound quality if the interior acoustics are not taken into account. Room boundaries, shapes and materials, for example, lead to reflections that can significantly impair sound transmission and music reproduction.

All crossovers have been specially calibrated to the acoustic conditions of the Marco Polo interior. The correct frequencies were assigned to each loudspeaker, thus achieving optimum listening comfort.

In addition, an acoustically calibrated amplifier sound setup was developed for the Marco Polo. including delay correction, equalizing etc. was configured for the Marco Polo.



Speaker »Front area«:

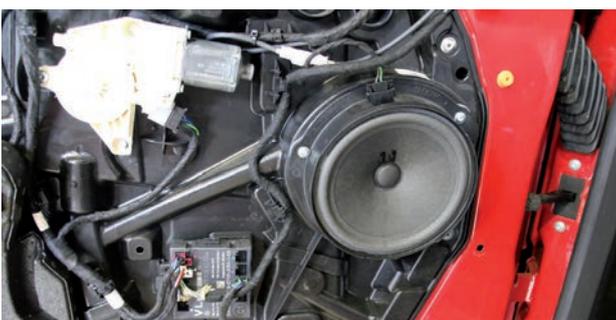
Front tweeter:

The factory tweeters are replaced by two newly developed 26mm JEHNERT softdome neodymium tweeters („XE26A“). For sonic fine-tuning, a 12db tweeter crossover was developed, which is integrated as a „cable crossover“ directly at the tweeter's speaker wire.



factory woofer:

The factory 165mm woofers in the vehicle doors on the right and left are currently retained in the Marco Polo. retained in the Marco Polo. For sampling in the Horizon, corresponding woofers were replaced and the doors were acoustically insulated.



factory installed woofer



JEHNERT Power Woofer incl. Crossover

2-way system »rear section«

A 26mm tweeter and 130mm mid-bass drivers are installed in the left and right side panels at the rear. To keep the installation simple and still achieve an optimal sound image, the rear system was replaced by two 130mm coaxial speakers including mounting ring.



rear system

EXPERIENCE LOW BASS !

The specific »Marco Polo« subwoofer

The task of a subwoofer is to support the low frequency range. In order to also achieve clear, spirited sound dynamics and perfection of the room sound, we generally recommend a subwoofer with every sound system.

Perfect sound dynamics • enjoy music alive • space • saving integration

It is mounted in a space-saving manner next to the seating group in the cavity of the rear side panel (passenger side). The housing was designed to fit exactly, so that the existing installations (control units, trailer coupling hitch, jack and on-board tools) remain unrestricted.



Subwoofer in the rear passenger side behind the side panel

Power: 1x 200 watts sine / 400 watts @ 2 ohms



subwoofer Marco Polo

200mm quadcoil subwoofer:

Due to an optimized volume design, the subwoofer holds approx. 18 liters. Despite the small cabinet volume, the subwoofer performs maximum sound quality.

The integrated 200mm subwoofer works with a 4-way voice coil drive highly efficient. Here, all four voice coils are controlled separately with the DSP amplifier.

The subwoofer is actively driven by the integrated subwoofer output of the 5-channel amplifier with a „plug & play“ connection cable and generates a full 160 watts RMS power with an impedance of 4x 2 ohms!



unique 200mm-»Quadcoil«
with 4-way voice coil

**The turbo for the sound system!
 Digital 5 channel amplifier!**



»plug&play« 5-channel amplifier with integrated digital signal processor

With advanced 56-bit DSP technology, this extremely powerful 5-channel digital amplifier drives the complete front and complete front and rear system including subwoofer. Settings for filter, delay correction and equalizer are configured via the eight separate amplifier channels, achieving the finest frequency programming for the complete sound system. It features a 200W/Rms subwoofer output. A dynamically controlled switching power supply reduces heat generation and keeps power requirements to an absolute minimum.

Result: For the complete sound system in the Marco Polo, a vehicle-specific sound setup was configured with time correction and equalizing was configured for the entire sound system in the Marco Polo, resulting in an enormous increase in sound quality.

5 channel DSP amplifier »plug & play«

- integrated digital sound processor
- pre-installed Marco Polo sound setup (delay correction, equalizing, etc.)
- easy connection via ISO adapter
- enormous sound increase thanks to more power and 56 bit DSP technology
- 8-channel total power 800 watts
- start/stop capability down to 6V supply voltage
- active subwoofer output
 for „plug&play connection Marco Polo subwoofer
- compact dimensions (H x W x D): 44 x 185 x 164 mm
- weight: 1840g
- connection optional for 3,5mm jack (input) for smartphone, tablet, 12V TV or Bluetooth module
- very power saving (power save) - electric vehicles approved - quiescent current under 1 mA



2.2m ISO adapter cable

Power consumption:

The amplifier is fused with 30A. The current requirement depends on how much power is called up. During normal music operation, this digital amplifier is one of the most efficient audio amplifiers around. With state-of-the-art power supply technology and amplifier circuitry, this amplifier is one of a kind.

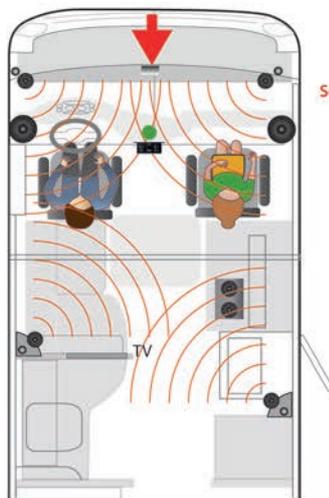
As soon as the „Power Save Mode“ is active, the internal amplifier stages as well as the „Remote Output“ are switched off, reducing the current consumption to less than 250 mA. The amplifier returns to its normal operating state within 2 sec. as soon as a music signal is applied to its input. The quiescent current consumption is less than 1mA and therefore negligible. The hardware used for Marco Polo and Marco Polo Horizon is the same, only a different setup is installed.

Amplifier controller for subwoofer control (Art.-No. 68495)

Subwoofer control and setup switch (integration in ACU control at Marco Polo):

The universal wired remote control makes it possible to set various functions such as subwoofer intensity or input volume. The respective configuration options are programmed with special software. The remote control can be used to switch between two sound setups, for example. This has the great advantage that the sound can be specifically adjusted for driving and stationary mode.

»Driving mode«

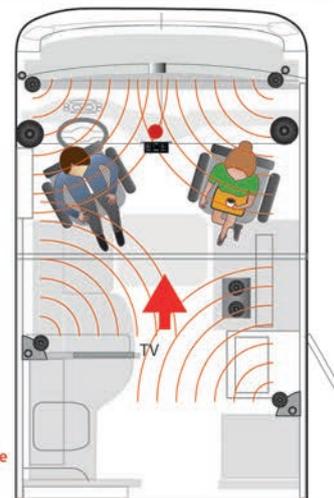


Sound comes from the front

The sound reproduction is mainly from the front.

Positioning and adjustment of the individual loudspeaker boxes by a time correction at the driver's seat.

»Standby mode«



Sound comes from inside

Positioning and adjustment of the individual loudspeakers on the driver and passenger seats without delay correction.

Effect: The rear speakers take over the main volume.

- Rear loudspeakers become the front loudspeakers.
- Front speakers become the rear speakers

An optimally aligned sound system!

AUX-In or Bluetooth® integrated in the amplifier (Art.-No. 11062-AUX-jack)

The AUX or Bluetooth® module adds a Bluetooth® audio streaming function or an AUX connection to the amplifier. Direct audio transmission in CD quality is possible. The connection directly to the amplifier, ensures lossless signal processing and thus unique sound performance.

- directly integrated in the amplifier
- lossless signal processing by direct transmission of the digital signals to the DSP.



If AUX as well as a Bluetooth connection via the amplifier is desired, it is possible to install the AUX module (11062-AUX-jack) on the board and to use 1x AUX for the TV via Y-adaption and to connect an external Bluetooth module at the second and connect an external Bluetooth module to the second AUX connector (68497).

»High-Power Soundpackage 1«

Tweeter and woofer front (without rear exchange)

- 2x »XE26« Neodymium Softdome Tweeter Front & Rear
- 2x »XM165« Power Woofer Front incl. mounting ring (door)
- incl. vehicle specific crossover
- 200 mm Marco Polo specific quadcoil subwoofer
- digital 5-channel high-performance amplifier (Art.-No. 11086)
- incl. pre-installed Marco Polo sound setup
- »plug & play« connection cable for subwoofer and amplifier



Front system



5 channel DSP amplifier



Vehicle specific
Bass reflex subwoofer



200 mm quadcoil subwoofer

»High-Power Soundpackage 2«

Tweeter and woofer front and rear

- Scope of delivery sound package »High-Power 1«
- 2x »XAC120« coax speaker rear incl. mounting ring



Rear system

Product description	Art. no.	RRP
Sound package »High-Power 1« Front	69755-82	1.529,-
Sound package »High-Power 2« Front & Rear	69751-82	1.698,-

Optional accessories	Art. no.	RRP
Amplifier knob to control subwoofer & setup switch	68495	39,-
AUX input integrated in amplifier	11062-AUX-jack	99,-
Bluetooth module integrated in amplifier	11086-BT	129,-
Bluetooth module external incl. Y-adapter for integration BT & AUX TV	68494-1	69,-
Extension cable f. control module sliding door (necessary until Bj. 18)	69497	69,-
plug & play connection cable -Standard Command (up to Bj. 19 without ACU)	11094	25,-
plug & play connection cable MBUX (from year 19 incl. ACU)	11080	72,-
Insulation package Marco Polo / Horizon / Activity / V-Class (from year 2014)	27960	108,-

Our team in Pliezhausen will be happy to provide you with advice and assistance at any time:

JEHNERT Sound Design

»Development and production of car audio systems«



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