

Emphaser EM-MBF3: Vehicle-specific speakers for Mercedes Sprinter

Sprinter sonic upgrade

► After the VW camper van and Fiat Ducato now it is the turn of the Mercedes Sprinter to enjoy a sound upgrade — with the new Emphaser EM-MBF3 for Sprinter W907.

When there is talk of sound upgrades for Mercedes, it normally concerns the C and E class and other limousines. Yet there is also a need in another area. The Sprinter is present on roads everywhere and is becoming steadily more popular among motorhomers. Therefore it is only logical for Emphaser to offer an appropriate speaker set as an upgrade: naturally, as always with speakers that fit exactly and have

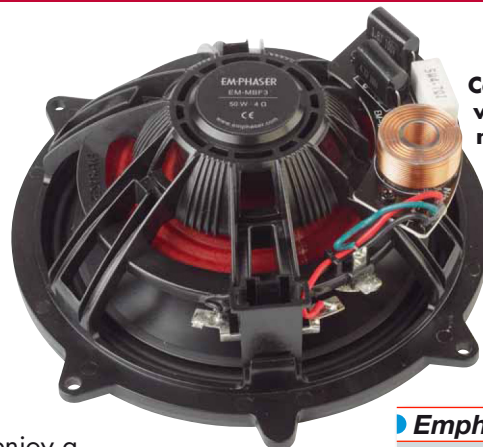
a plug & play connection to the original vehicle connectors. What makes the EM-MBF3 special is that it is not only a 2-way front system, but also includes a center speaker. This little 8-centimeter mid-range wide-bander comes with its own crossover to protect it from low frequencies, and it also has a dual voice coil. This is necessary with Mercedes to support the automatic emergency call system



12 dB low pass filter and a bypass sit on the circuit board that is attached directly to the woofer basket

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Center speaker and woofer work with neodymium as magnet material, which saves space compared to ferrite rings

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eCall, which feeds the the center independently of the hi-fi system. Otherwise with the EM-MBF3 we are looking at a finely made speaker set as we have come to expect. The baskets are made of glass fiber reinforced plastic. Aluminum is used for the cones of the woofer and center speakers. Furthermore, on account of the tight space available in the Sprinter door the woofer works with a neodymium magnet drive. A very practical solution has been found for placing the woofer crossover, which sits directly on the basket. This is a 12-dB low pass filter for the 16 cm speaker, the coil being bridged with an extra RC element. The tweeter crossover sits as usual in the supply lead, which makes it look nice and slim.

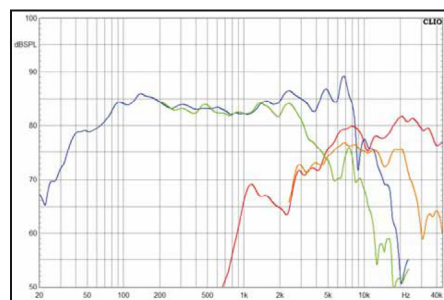
Measurements and Sound

Unsurprisingly, the 80 millimeter center speaker is by its very nature not that efficient. Moreover, without correction it runs in the mid-range rather roughly. On the plus side it exhibits a very wide band working range so that it is well equipped for its job as a center fill. The main job of music reproduction is done by the door speakers, which Emphaser has perfectly under control. The 16-cm runs nice and linear with a perfect drop in level off-axis. The tweeter level is suitably set and plays up to beyond the 30 kHz mark; the new 19 mm dome with rear resonance chamber has become really outstanding. Sonically the system is lively, delivering clean lows and an altogether vibrant sound. Details in the highs are easy to pick out, but don't push into the foreground. The spatial positioning of the musical actors is a sure and coherent success. Altogether the MBF3 is a clear recommendation for an improved sound.

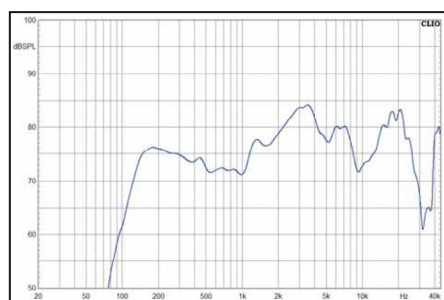
Summary

With the EM-MBF3 Sprinter drivers

now also get to enjoy a plug & play upgrade for better sound. With a center speaker and neodymium driver a lot of effort has gone into the system and it comes with a price, but the gain in sound quality speaks for itself.



Both chassis run very well, the woofer impresses with its linear response, the tweeter works way above the audible range



The 80 mm center speaker covers a band from 200 Hz to over 20 kHz

The tweeter crossover comes along slim in the cable



Emphaser EM-MBF3

Price	about 350 Euro
Distributor	ACR, CH-5330 Zurzach
Hotline	info@acr.eu
Internet	www.acr.eu

Summary

Sound quality	55 %	1,2	■■■■■
Bass	11 %	1,5	■■■■■
Neutrality	11 %	1,5	■■■■■
Transparency	11 %	1,0	■■■■■
Soundstaging	11 %	1,0	■■■■■
Dynamics	11 %	1,0	■■■■■
Lab	30 %	1,3	■■■■■
Frequency response	10 %	1,0	■■■■■
max. volume	10 %	1,5	■■■■■
Distortion	10 %	1,5	■■■■■
Practice	15 %	1,2	■■■■■
Installation	5 %	1,0	■■■■■
Crossover	5 %	1,5	■■■■■
Workmanship	5 %	1,0	■■■■■

Technical Data

Diameter TT	165 mm
Mounting depth TT	57 mm
Diameter MR	80 mm
Mounting depth MR	33 mm
Tweeter dome diameter	19 mm
Tweeter housing diameter	33 mm
Slope	-12 dB
Tweeter protection	-
Tweeter volume adjustment	-
Fits in here *	Sprinter W907
other	-
Nominal impedance	2 ohms
DC resistance Rdc	3,86 ohms
Coil inductivity Le	0,32 mH
Coil diameter	25 mm
Cone surface Sd	131 cm ²
Resonance frequency Fs	56 Hz
Mechanical quality Qms	5,15
Electrical quality Qes	0,85
Total quality Qts	0,73
Equivalent volume Vas	14,3 l
Moving mass Mms	13,5 g
Rms	0,92 kg/s
Cms	0,60 mm/N
B*I	4,65 Tm
Pressure 2 V, 1 m	85 dB
Power handling	20 - 80 W

Emphaser EM-MBF3

Mercedes-loudspeaker 1,2

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Price/performance: very good

"Practical good sound in the Sprinter."