

Emphaser EM-VWF4: 2-way system for the VW Bus T6.1



Sound in the Camper Van

► This spring Emphaser is coming out with a firework show of new VW speakers for a wide range of models. It starts off with the EM-VWF4, which we have just had for test in the editorial department.

As many as four new VW sets will shortly be presented by Emphaser. They will cover vehicles with 15 cm woofers and those with 18 cm woofers, then there will be two systems for the Bus in the form of the EM-VWF3 for T5 and EM-VWF4. The latter is our test object that fits into the popular 6.1 Camper Van. In the T6.1 VW refused to use standard DIN woofers or to adopt their basic dimensions. Instead they use an intermediate size that, at approx. 150 mm, is a half-size smaller than a standard 165 mm woofer. Also because of the trim and its distance from the unit carrier there is only one clean upgrade solution, and that is to develop a special

T6.1 speaker. Therefore Emphaser has developed a tailor-made basket of fiber reinforced plastic that solves all the installation problems. On the outside edge of the basket is a socket for the original VW connector so that installation is plug and play. There is no external crossover, though Emphaser does not simply leave the woofer crossover out as is often done

Plug and play: The woofer basket is a new development that fits the T6.1 exactly

with inexpensive aftermarket speakers. Within the basket structure there is sufficient space to accommodate a crossover, and what



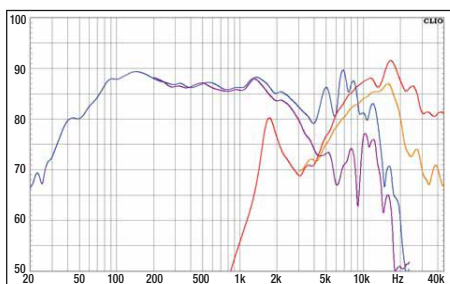


Ingenious solution:
The suitably curved circuit board carries a fully-fledged woofer branch of the passive crossover

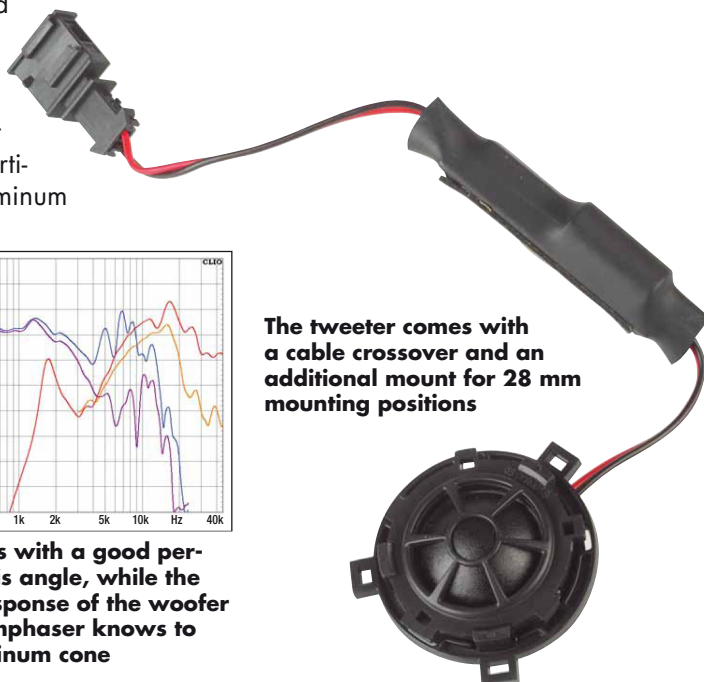
cone with inverse dust cap also functions sensationally well. Furthermore, the amplitude frequency response of the Emphaser mid/woofer shows that the crossover is perfectly matched. The unavoidable resonance peaks you get with aluminum cones are effectively damped, with almost nothing more present under off axis angle. The only little minus point is that the 15 cm unit does not count among one of the most powerful of woofers. However, its SPL capabilities are fully adequate and by no means worse than is usual. This is also evident in the hearing test, where we were able to achieve good levels. Overall the EM-VWF4 showed its best side with distortionless playing. It sounds nice and crisp with lots of details, but on the other hand is also suitable for long distance listening. Precise bass tones, faithful vocals reproduction and great spatial depth let the VWF4 reach the hearts of the listeners.

Measurements and Sound

The 25 mm woven fabric dome used for the tweeter behaves well up to 20 kHz with a very good omnidirectional radiation pattern. The woven dome exhibits restraint even in the presence of distortion, which we take note of favorably. Exactly like the tweeter, the 15 cm woofer showed an almost perfect level during our measurements. It performs without any kind of distortion. The hard aluminum



The tweeter pleases with a good performance at off axis angle, while the clean frequency response of the woofer shows how well Emphaser knows to deal with the aluminum cone



The tweeter comes with a cable crossover and an additional mount for 28 mm mounting positions

BEST PRODUCT
VW-Loudspeaker
CAR&HiFi 3/2024

Emphaser EM-VWF4

Price about 300 Euro
Distributor ACR, CH-5330 Zurzach
Hotline info@acr.eu
Internet www.acr.com

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 %	1,5	■■■■■
max. volume	10 %	1,5	■■■■■
Distortion	10 %	1,0	■■■■■
Practice	15 %	1,2	■■■■■
Installation	5 %	1,0	■■■■■
Crossover	5 %	1,5	■■■■■
Workmanship	5 %	1,0	■■■■■

Technical Data

Basket diameter W	150 mm
Mounting diameter W	34 mm
Mounting depth W	85 mm
Manget diameter W	100 mm
Tweeter dome diameter	25 mm
Tweeter housing diameter	42 mm
Slope W/T	12/6 dB
Tweeter protection	-
Tweeter volume adjustment	-
Fits in here *	VW T6.1
other	-
Nominal impedance	2 ohms
DC resistance Rdc	1,90 ohms
Coil inductivity Le	0,10 mH
Coil diameter	25 mm
Cone surface Sd	121 cm ²
Resonance frequency Fs	63 Hz
Mechanical quality Qms	7,54
Electrical quality Qes	0,72
Total quality Qts	0,66
Equivalent volume Vas	9,3 l
Moving mass Mms	13,9 g
Rms	0,73 kg/s
Cms	0,46 mm/N
B*1	3,81 Tm
Pressure 2 V, 1 m	88 dB
Power handling	30 - 100 W

Emphaser EM-VWF4

VW-loudspeaker **1,2**

CAR&HiFi 3/24

Price/performance: very good

"T6.1 - a perfectly successful sound upgrade."