

EM·PHASER

EM-BMWSUB2 • TEST REPORT CAR&HIFI 1/2024



The installation depth for BMW underseat enclosures is very limited, but there is no problem fitting the Emphaser at 31 mm

Summary

The EM-BMWSUB2 is the perfect addition to Emphaser's front system EM-BMWF1 – bass fun guaranteed.

LEVEL-TIP
BMW-Loudspeaker
CAR & HiFi 1/2024

Emphaser EM-BMWSUB2: Woofer set for BMW underseat enclosure

BMW Woofer

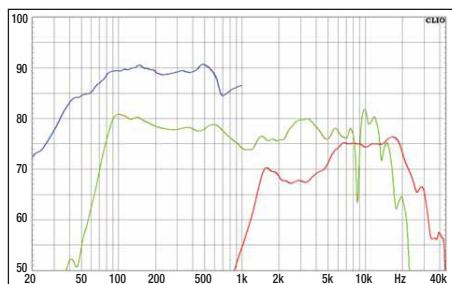
Anyone wanting a little more bass in their BMW or Mini should consider retrofitting an underseat woofer. We have found an attractive solution in the Emphaser EM-BMWSUB2.

Door speakers in BMWs consist of 10 cm mid-range speakers and tweeters so not much bass can be expected from the door systems. When considering a basic configuration it is therefore preferable to fit woofers housed in BMW-specific underseat enclosures. But even in configurations with factory woofers an improvement in the sound can be achieved with high quality aftermarket woofers. Our EM-BMWSUB2 are 2-ohm woofers so that an additional power amp is advisable; the resulting power boost and the superbly made

20-cm woofers can then really let rip. For this reason the EM-BMWSUB2 units are equipped with very stiff aluminum cones driven by large 50-mm voice coils. The centering of the super flat speakers forms the termination, the terminal wires being woven into the spider so that they do not flap about and get damaged.

Measurements and Sound

With a resonant frequency of 61 Hz and an overall quality factor (Q) of 0.7, the EM-BMWSUB2 units show themselves to be perfectly matched to the BMW enclosure. Our frequency response measurement shows a high SPL of 90 dB, so the woofers emit a lot of sound pressure even at relatively little power. In the hearing test the EM-BMWSUB2 impress us with an extremely precise bass reproduction. Fast bass lines are faithfully reproduced and sound explosive when required. Equally, no one will complain about lack of deep bass, the level achievable being considerable.



The EM-BMWSUB2 delivers 90 dB at 2 V/1m. Emphaser door system shown for comparison

Emphaser EM-BMWSUB2

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

Summary

Sound quality	50 %	1,1	■■■■■
Bass	12,5 %	1,0	■■■■■
Pressure	12,5 %	1,0	■■■■■
Clearance	12,5 %	1,5	■■■■■
Dynamics	12,5 %	1,0	■■■■■
Lab	30 %	1,3	■■■■■
Frequency response	10 %	1,0	■■■■■
Efficiency	10 %	1,5	■■■■■
max. volume	10 %	1,5	■■■■■
Practice	20 %	1,3	■■■■■
Installation	10 %	1,0	■■■■■
Workmanship	10 %	1,5	■■■■■

Technical Data

Diameter	20 cm
Mounting depth	3,1 cm
Weight	1,5 kg
Nominal impedance	2 ohms
DC resistance Rdc	1,81 ohms
Coil inductivity Le	0,35 mH
Coil diameter	50 mm
Cone surface Sd	269 cm ²
Resonance frequency Fs	61 Hz
Mechanical quality Qms	6,87
Electrical quality Qes	0,80
Total quality Qts	0,71
Equivalent volume Vas	11,7 l
Moving mass Mms	59 g
Rms	3,29 kg/s
Cms	0,12 mm/N
B*1	7,16 Tm
Pressure 2 V, 1 m	90 dB
Power handling	75 – 200 W

Emphaser EM-BMWSUB2

BMW-loudspeaker 1,2

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Price/performance: very good

"Great sounding bass upgrade for BMW and Mini."