

# EM·PHASER

EM-VWFX180 • TEST REPORT CAR&HIFI 4/2024

Emphaser EM-VWFX180 - aftermarket speaker for many VW & Co.



## Top VW-upgrade

► In the vehicle-specific speaker segment Emphaser has been very active recently. With the new EM-VWFX180 for many VW, Seat and Skoda models an interesting set has been launched.

If you want to upgrade a vehicle from the VAG Group you will find what you need at Emphaser, particularly as a T5 or T6 driver. Now with the EM-VWFX180 coverage has been considerably expanded. Our 18 cm set fits into many Volkswagen models, from the Passat through the Tiguan to the Tou- ran. In the case of Skoda, the Octavia

II, Superb II and Yeti models are covered. The set also fits in the Seat Alhambra II. There is also an EM-VWFX155 available for VAG vehicles with 15 cm installation slots. Our EM-VWFX180 is cleanly made and comes with a typical tweeter for mirror triangles that fits into the original slots thanks to the precise lugs on the housing. The 25 mm wo-

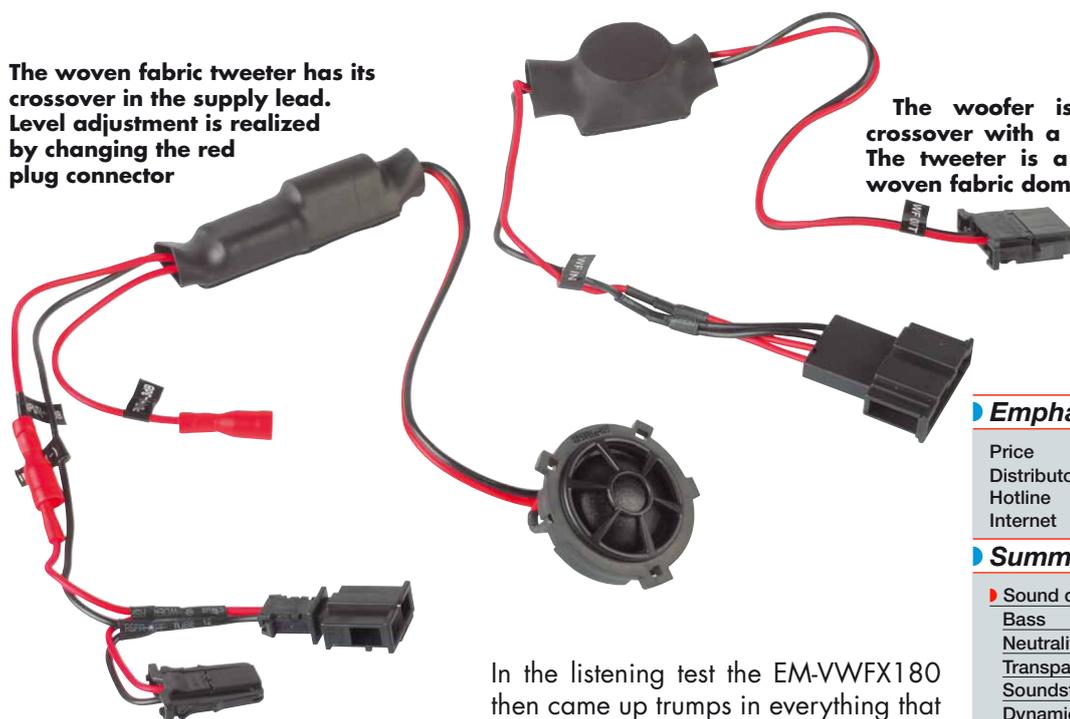
ven fabric dome is quite intentionally not cooled with ferrofluid. That promises a livelier sound, at least in terms of feel. The crossover is accommodated in the supply lead, which is of course connected to the cable loom via the vehicle plug. For the many different vehicles a level adjustment has been built in, which uses two different plug con-

The woofer in 180 mm VW format is a real bass specialist thanks to a low resonant frequency and a powerful ferrite driver

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The woven fabric tweeter has its crossover in the supply lead. Level adjustment is realized by changing the red plug connector



The woofer is provided with a cable crossover with a low-distortion air-core coil. The tweeter is a beautifully made 25 mm woven fabric dome

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nectors. The 18 cm woofer also has a crossover in its supply cable. You have the option of using it or leaving it out. It works with a good, low-distortion air-core coil. The woofer comes in a precisely fitting basket made of reinforced plastic. It works with a paper cone, coated on the front with quartz crystals to precisely tune the material characteristics. Emphaser has also not spared on the driver. Here we find a thick ferrite ring with finely machined pole pieces lying flat against it—always a sign of good quality speakers.

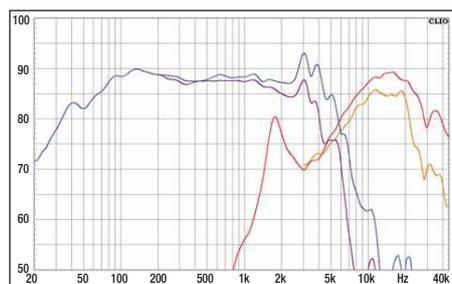
### Measurements and Sound

As regards the tweeter, the pronounced resonance at 1.8 kHz attracts attention, but for a 25 mm dome this lies in the normal region. The amplitude response also shows this resonance to be quite unaffected by the 6 dB crossover. The reason for this is the lack of ferrofluid in the air gap that would otherwise damp the voice coil. The large woofer also runs docile as a lamb without a crossover. Here once again the very good characteristics of paper as a cone material are in evidence. The 6 dB separation attenuates the mid-range with only minimal effect. The coil value is small enough for the 18 cm speaker not to lose any sound pressure in the fundamental tone.

In the listening test the EM-VWFX180 then came up trumps in everything that makes for good music reproduction. Overall it sounds balanced and harmonious, with excellent timbre for vocals and instruments. The tweeter is never annoying and gives the system a sound suitable for long distances. The generous cone area of the woofer means there is ample bass. However, it is not just the quantity that is pleasing, but also how very precise it sounds. The deep bass response is outstanding for a two-way system, so we would also confidently operate the EM-VWFX180 without a subwoofer.

### Summary

The EM-VWFX180 is an all-round successful upgrade for many Volkswagen and sister models. The system runs trouble-free and offers a great improvement in the sound.



**With a characteristic sound pressure level of 89 dB the large woofer is just as pleasing as its deep bass and faultless mid-range. In the case of the tweeter the undamped fundamental resonance stands out.**

### Emphaser EM-VWFX180

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

### Summary

▶ Sound quality	55 %	1,2	■■■■■
Bass	11 %	1,0	■■■■■
Neutrality	11 %	1,5	■■■■■
Transparency	11 %	1,0	■■■■■
Soundstaging	11 %	1,0	■■■■■
Dynamics	11 %	1,5	■■■■■
▶ 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

Nominal diameter W	180 mm
Mounting depth with ring W	32 mm
Manget diameter W	102 mm
Tweeter dome diameter	25 mm
Tweeter housing diameter	40 mm
Slope W/T	6/6 dB
Tweeter protection	-
Tweeter volume adjustment	•
Fits in here * VW, Seat, Skoda with 180 mm other	-
Nominal impedance	2 ohms
DC resistance Rdc	1,73 ohms
Coil inductivity Le	0,21 mH
Coil diameter	25 mm
Cone surface Sd	174 cm <sup>2</sup>
Resonance frequency Fs	46 Hz
Mechanical quality Qms	4,51
Electrical quality Qes	0,53
Total quality Qts	0,48
Equivalent volume Vas	26,7 l
Moving mass Mms	18,9 g
Rms	1,22 kg/s
Cms	0,63 mm/N
B*I	4,22 Tm
Pressure 2 V, 1 m	89 dB
Power handling	30 - 100 W

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**VW-loudspeaker 1,2**

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Price/performance: very good

"Top VW upgrade."