


PW8-400BR + PW10-500BR + PW12-600BR
— new subwoofer series from Eton



Enclosed subwoofers from Eton

► With the PW enclosed subwoofers Eton presents a new series positioned in the middle of the market. Best sound quality at an affordable price is what they want to be, so we have to check out.

Eton, the German manufacturer with a long tradition is one of the most reputable loudspeaker producers there is, thanks to its own in-house speaker production. Apart from the highly respected component speakers and small speakers, there is a whole series of subwoofer chassis in its range. Among enclosed subwoofers Eton has active subwoofers that come in many variants. However, among the passive enclosures there was a need for action. Solutions were found for the swish woofers of the M and F series, but that was about it. Now the new PW series is here just at the right time. The woofer chassis in this series are cheaper, and can also be offered as finished enclosures, which is excellent. No sooner said than done: here we have the PW8-400BR, PW10-500BR and PW12-600BR in nicely made, yet compact enclosures. Quite in the Eton style, the enclosures come over rather low-key. Yet as soon as you see them they differ from conventional bass boxes. The form is distinct and relatively elaborate to produce. Instead of the usual wedge form, the PW enclosures are more appealing thanks to the flattened edges at the rear, and also sleek-

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The drivers of the PW woofers have been given rubber caps that extend to the basket spokes

er than the standard box thanks to the sloping fronts. The surface also plays its part as Eton relies on a thick, impact resistant paint that has already been used before, e.g. on the RES spare wheel enclosures. Manufacture is CNC controlled with a correspondingly high quality and perfect fit so that at this point there is extra praise for the finish. Practical aspects have been thought of and a proper job made of protecting the cone. Massive flush fitting perforated grilles of painted metal do an effective job of protecting the sub-woofer, while contributing to the clean, smooth-surfaced look. The acoustic baffle is set back a few centimeters behind the grille. This is also where the slot ports open out; they are made of stable MDF like the enclosures. The

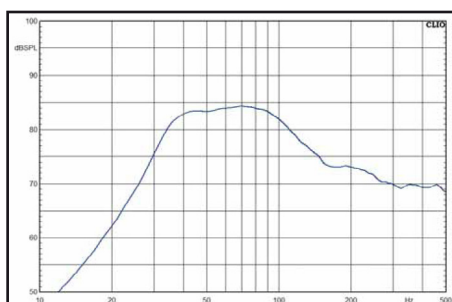
connection terminals at the rear are also milled flush. The 2 x 2 ohm dual voice coils are individually led out here. The built-in PW woofers are solid partners. True they only have metal baskets, but they have turned out to be very stable with their three-dimensional pressed spokes. Eton has made no experiments with the cones. As for all normal sub-woofers the PW cones are made of air-dried paper. They are set in foam surrounds that are built more for height than width so that at full stroke the least possible cone surface is lost. Like all low-priced subwoofers the baskets are made of sheet metal. Those here are of the more stable kind on account of the 3D stamped basket spokes. The drivers are protected by large surface rubber sleeves, mainly for appearance. Large

area rear vent openings and rounded pole piece holes for a favorable air flow produce excellent ventilation. With installation depths from 13 to 15 centimeters the PWs are not flat woofers, but in return it was not necessary to make any compromises in the design. All woofers have ample freedom of motion by which is meant the mechanically possible stroke of the moving assembly. Unexpectedly, the little PW 8 leads with 30 millimeters, while the PW 10 and PW 12 achieve an entirely adequate 25 millimeters. Actually, the drivers of the three are individually designed: there is no standard driver here with Thiele/Small parameters that may get unmanageable in the case of the small or large cones. The PW 8 works with a well dimensioned 50 mm voice coil, while the two larger PWs have even been given ones with 64 mm diameters. As regards the electrical excursion the PW8 and PW 10 are best at more than 10 millimeters. However, the PW 12 must be content with less than 10 millimeters, the large cone surface helping it not fall behind the performance of its little brothers. When measurements and sound for the PW8-

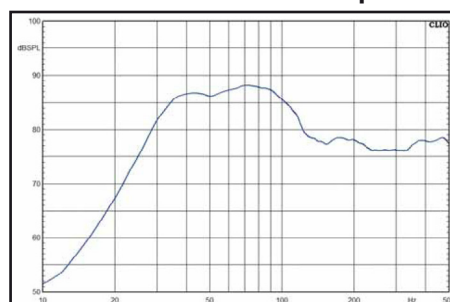
The PW8 is a long stroke design so the installation depth is deep



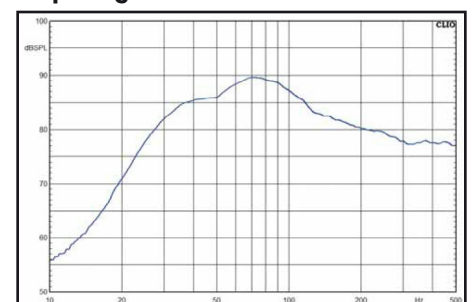
PW woofers have well ventilated baskets and stable paper cones with pointed cone opening



The small cone surface area of the PW8-400BR is not evident in its amplitude response, the level being fully adequate across all important bass frequencies



The PW10-500BR delivers a very well balanced frequency response. At 87 dB/1 W the sensitivity is decent and the cut-off frequency reasonably low at just under 35 Hz



The PW12-600BR runs down to deep bass with a tear-off edge at just over 30 Hz. Above 50 Hz it almost achieves the 90 dB/1 W mark

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The PW enclosures are swish crafted, PW10 and PW12 being almost the same size



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Upper-Class
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SOUND-TIP
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400BR, PW10-500BR and PW12-600BR are compared side by side, it is striking how compact the little 20-cm speaker really is. However, the 25-cm and 30-cm speakers don't make much of their size. Whereas the PW10 with 30 liters has ample volume available, the PW12 with 62 % more cone surface area has to manage with only a meager 5 liters more volume. That is also evident in our frequency response measurement. The PW8-400BR and PW10-500BR run very smoothly down below their tuning frequencies at 42 and 38 Hz, while the PW12-600BR loses sound pressure in the deep bass. However, it is wisely tuned at 36 Hz so that it works brilliantly in the car. There it shines with masterful pressure, while the PW 10 brings out a solid punch across all bass frequencies. On the other hand, the PW 8 plays lightning quick without neglecting the deep frequencies. With fast bass lines the PW 8 and PW 10 are head to head, sounding similar, that is to say super clean without appearing too thin. The PW 10 then leaves the PW8 behind at maximum level, and even the PW 12 can hardly improve on that. Its strength lies in its mature performance: when it plays there is always enough pressure and deep bass in all situations. Altogether the PW 10 is capable of taking center stage, as it can do everything and really well too. The little PW8 is not far behind, and is recommended for small enclosures and a super crisp sound. Conversely, by all means go for the PW 12 if the space is there and you want a masterful bass sound.

Summary

The PW-BR enclosed subwoofers are a welcome solution for all who want to have a real subwoofer quickly and without tinkering about. The series is superbly finished and delivers a characteristic sound, depending on model, that you have got to like.

Subwoofers	Eton PW8-400BR	Eton PW10-500BR	Eton PW12-600BR
Price	about 200 Euro	about 250 Euro	about 290 Euro
Distributor	ACR CH-Zurzach info@etongmbh.com etongmbh.com	ACR CH-Zurzach info@etongmbh.com etongmbh.com	ACR CH-Zurzach info@etongmbh.com etongmbh.com
Hotline			
Internet www			

Summary				
Sound quality	50 %	1,0	1,0	1,1
Bass foundation	12,5 %	1,5	1,0	1,0
Pressure	12,5 %	1,0	1,0	1,0
Accuracy	12,5 %	1,0	1,0	1,0
Dynamics	12,5 %	0,5	1,0	1,5
Lab	30 %	1,8	1,7	1,7
Frequency response	10 %	1,0	1,0	1,5
max. volume	10 %	3,0	2,5	2,0
Distortion	10 %	1,5	1,5	1,5
Practice	20 %	1,0	1,0	1,0

Technical data

Chassis diameter	21,6 cm	27,8 cm	32,6 cm
Mounting cutout	18,6 cm	23,4 cm	28,6 cm
Mounting depth	13,1 cm	13,5 cm	15,2 cm
Magnet diameter	13,0 cm	15,2 cm	16,2 cm
Housing width	38,0 cm	41,0 cm	46,0 cm
Housing height	28,0 cm	34,0 cm	37,5 cm
Housing depth	29,5 cm	40,0 cm	37,0 cm
Weight	11,1 kg	16,3 kg	18,7 kg
Nominal impedance	2 x 2 Ohm	2 x 2 Ohm	2 x 2 Ohm
DC resistance Rdc	3,71 Ohm	4,04 Ohm	4,05 Ohm
Coil inductivity Le	2,73 mH	2,87 mH	2,91 mH
Coil diameter	50 mm	64 mm	64 mm
Cone surface Sd	194 cm ²	327 cm ²	531 cm ²
Resonance frequency fs	42 Hz	41 Hz	40 Hz
Mechanical quality Qms	5,91	6,93	6,60
Electrical quality Qes	0,63	0,72	0,67
Total quality Qts	0,57	0,65	0,61
Equivalent volume Vas	6,8 l	14,9 l	32,2 l
Moving mass Mms	111 g	152 g	195 g
Rms	4,94 kg/s	5,64 kg/s	7,39 kg/s
Cms	0,13 mm/N	0,10 mm/N	0,08 mm/N
B*1	13,14 Tm	14,82 Tm	17,14 Tm
Pressure 1 W, 1 m	84 dB	87 dB	89 dB
Power handling	200 – 500 W	200 – 600 W	200 – 600 W
Test chamber	BR 14,5 l	BR 30 l	BR 34,5 l
Tunnel (d x l)	25 cm ² x 18 cm	56 cm ² x 25 cm	264 cm ² x 22 cm

Upper-Class 1,2

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Price/performance: very good

"Finely made allround subwoofers."

Upper-Class 1,2

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Price/performance: very good

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Upper-Class 1,3

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