

AxTON

ATS-B100C + ATS-BSUB2 • TESTREPORT CAR&HIFI 6/2023

Axton ATS-B100C + ATS-BSUB2: better sound is affordable



Attractive BMW upgrade

► **Axton goes BMW: As of now Axton has easy speaker upgrade sets for almost all the BMWs of this millennium. We have tested the front system ATS-B100C and the woofer set ATS-BSUB2.**

Axton has always stood for providing good in-car audio at a fair price. The best example of this is the DSP power amps of the A Series, but the ATC component speakers are also legendary and invariably the best entry-level choice. That is now to be carried over into the vehicle-specific systems area

with the Axton Specific Series. Axton began with the BMW marque (and of course the Mini), large numbers of these vehicles being driven around on our roads with sub-standard factory configurations since the 2000s. In addition, with the E60 model series BMW introduced the underseat



The tweeter can also be mounted with an adapter, but this is not necessary if installation slots already exist



The coaxial speaker also works with a mineral coated paper cone, only in that case a 19-mm aluminum dome is installed

bass enclosure. A great sound can be conjured out of these, but a special very flat bass chassis is required. For the door speakers there are three generations of slightly modified mounting slots so Axton offers three different series of speaker sets. Broadly speaking that is the B102 for vehicles of the 2000s, the B101 for the 2010s and the B100 for current vehicles, each being a 2-way component system: for example, ATS-B100C for the front doors, and the coaxial ATS-100X for the rear doors and center. In the case of the woofers there are two variants BSUB2 and BSUB4 with 2-ohm and 4-ohm impedance respectively, so you can choose the woofer that matches the power amp in use. Prices range from 150 euros for a 2-way system, 130 euros for a coaxial pair and 200 euros for a pair of woofers, and are therefore considerably more attractive than the established components on the market.

The lower prices are not reflected in the speakers in the slightest; just the fact that every chassis is fitted with a neodymium driver speaks for itself. Taking the tweeter, its casing is in fact precision made, effort that might well have been saved, but Axton did it so that it looks nicer. The tweeter works with a 25-mm aluminum dome suspended in a surround of impregnated fabric, which slightly damps the hard dome. The mid-range speaker comes with a plastic basket provided with moss rubber seals on front and rear so that the speaker can be cleanly installed without an acoustic

short circuit. The basket is furthermore very well vented with its slender struts and extensive rear vent openings. The cone is of a new design: it is made of pressed paper with a mineral coating. The neodymium driver operates with a suitable 25-mm voice coil. On the mid-range component speaker it is somewhat larger than on the coaxial. All speakers as well as the crossover are fitted with BMW connectors so that the wiring has plug & play function. The crossover is responsible for the tweeter, and is actually very well made with an MKP capacitor, air coil and MOX resistors. The woofer is also impressive, being of high quality and cleanly finished. The cone is made of quartz-

coated paper, this being just the thick, air-dried type. In front of the cone is a metal basket that also carries the „front driver“. The voice coil measures 50 mm in diameter, with the neodymium ring being inside. The plastic basket at the rear carries the centering spider, once again with mounting seals.

Measurements and Sound

Our mid-range and tweeter combination fares very satisfactorily in the lab. The frequency response of the tweeter extends up to 250 Hz. Above that there is no resonance peak, instead of which the metal basket shows a combing effect before coming down again just short of 40 kHz. The mid-



The underseat woofer is trimmed for minimal installation depth. There is no centering plane, the driver sitting on the front



The mid-range speaker is equipped with a large neodymium drive motor with a 25-mm coil

range speaker works perfectly with no serious resonance phenomena, having an effective range of 250 to 300 Hz. What is great is that it plays up into the high level regions with very low distortion. The 20 cm underseat woofer works faultlessly. At 53 Hz the resonant frequency is appropriate for the BMW enclosure. The Q factor of 1.06 has turned out quite high. Sonically, the bass of the systems is on the warmer side and there is a lot of it. That is fun with hip hop beats, which are also reproduced nice and deep. But the Axton can also do the mids. The colors and naturalness of the vocal range come over well, while the strings are reproduced crisply with many harmonics. The spatial impression is very generous so that the music can develop beautifully.

Summary

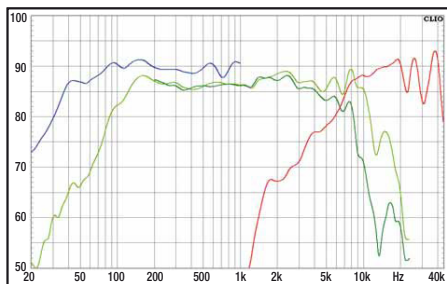
With the ATS component series for BMW Axton can offer faultless speakers that have no need to fear comparison. Build quality and sound are of a high level. Not least, the price/performance is excellent.



The coaxial speaker has a rather smaller magnet motor than the mid-range, but all speakers have BMW specific connectors



The crossover includes a 12-dB filter for the tweeter, and uses very good components



The mid-range speaker works superbly from 200 Hz to 5 kHz. The tweeter shows comb effects above 20 kHz. The woofer in the 2-ohm version produces 91 dB@2V/1m

PRICE-TIP
BMW-Loudspeaker
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Axton ATS-B100C + ATS-BSUB2

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

Summary

Sound quality	55 %	1,2	■■■■■
Bass	11 %	1,5	■■■■■
Neutrality	11 %	1,0	■■■■■
Transparency	11 %	1,5	■■■■■
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 %	1,5	■■■■■
Installation	5 %	1,0	■■■■■
Crossover	5 %	2,0	■■■■■
Workmanship	5 %	1,5	■■■■■

Technical Data

Basket Diameter M/W	200 mm
Mounting depth M/W	37 mm
Diameter midrange	100 mm
Mounting depth midrange	31 mm
Tweeter dome diameter	25 mm
Tweeter housing diameter	42 mm
Slope	-/-12 dB
Tweeter protection	-
Tweeter volume adjustment	-
Fits in here *	F and G-models
other	-
Nominal impedance M/W	2 ohms
DC resistance Rdc	2,20 ohms
Coil inductivity Le	0,38 mH
Coil diameter	50 mm
Cone surface Sd	255 cm ²
Resonance frequency Fs	53 Hz
Mechanical quality Qms	3,62
Electrical quality Qes	1,51
Total quality Qts	1,06
Equivalent volume Vas	17,6 l
Moving mass Mms	46,1 g
Rms	4,25 kg/s
Cms	0,19 mm/N
B*I	4,74 Tm
Pressure 2 V, 1 m	91 dB
Power handling	60 - 250 W

Axton ATS-B100C + ATS-BSUB2

BMW-Loudspeaker 1,3

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Price/performance: excellent

"Good BMW upgrade at a nice price."