

GERMAN CAR AUDIO
BRAX[®]



Music is emotion. It is full of power and rhythm, purity and energy, tones and vibrations, joy and vitality.

We make amplifiers and loudspeakers, that truly express the magic and fascination of music - with love and passion, with precision and knowledge and the absolute ambition to create outstanding products for the pleasure of pure sound.

AUDIOTEC FISCHER



BRAX High End Amplifiers

Within a few years BRAX amplifiers have got an outstanding reputation as top of the best in the automotive field. Numerous international awards confirm their innovative technology, superior craftsmanship and perfect sound performance.



The uncompromising classical BRAX design has got the latest high end technologies. A complete new conceived circuit board and finest careful selected components are the features of the new models X 2000.2 , X 2400.2 as well as both GRAPHIC EDITIONS. That guarantees their audiophile sound quality.

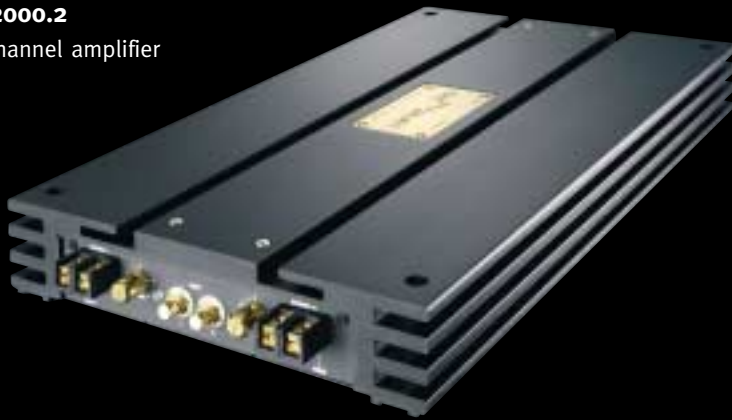
The new generation has variable active crossover per channel to guarantee the optimum operation of the loudspeakers. They can be used as highpass, lowpass or bandpass and they are switchable from 12 dB to 24 dB. The frequency range is from 15 Hz up to 4.5 kHz.

The GRAPHIC EDITION is the optimized series of the legendary 2- and 4 channel BRAX High End amplifiers in terms of audiophile sound quality and power. The transistors of the GRAPHIC EDITION are selected in more than 300 categories with a special developed measuring device.

The most important lines on the circuit board are reinforced with silver wires, to avoid even the smallest lost of power that can affect the dynamic. Special made Burr-Brown OPs are used for the signal line to achieve an unsurpassable precise and natural sound reproduction. The extended heatsink is available in high-grade platinum color or chrome design.



X 2000.2
2-channel amplifier



X 2400.2
4-channel amplifier



X 2000.2
GRAPHIC EDITION
2-channel amplifier



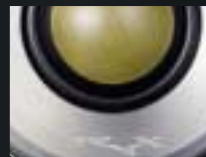
X 2400.2
GRAPHIC EDITION
4-channel amplifier



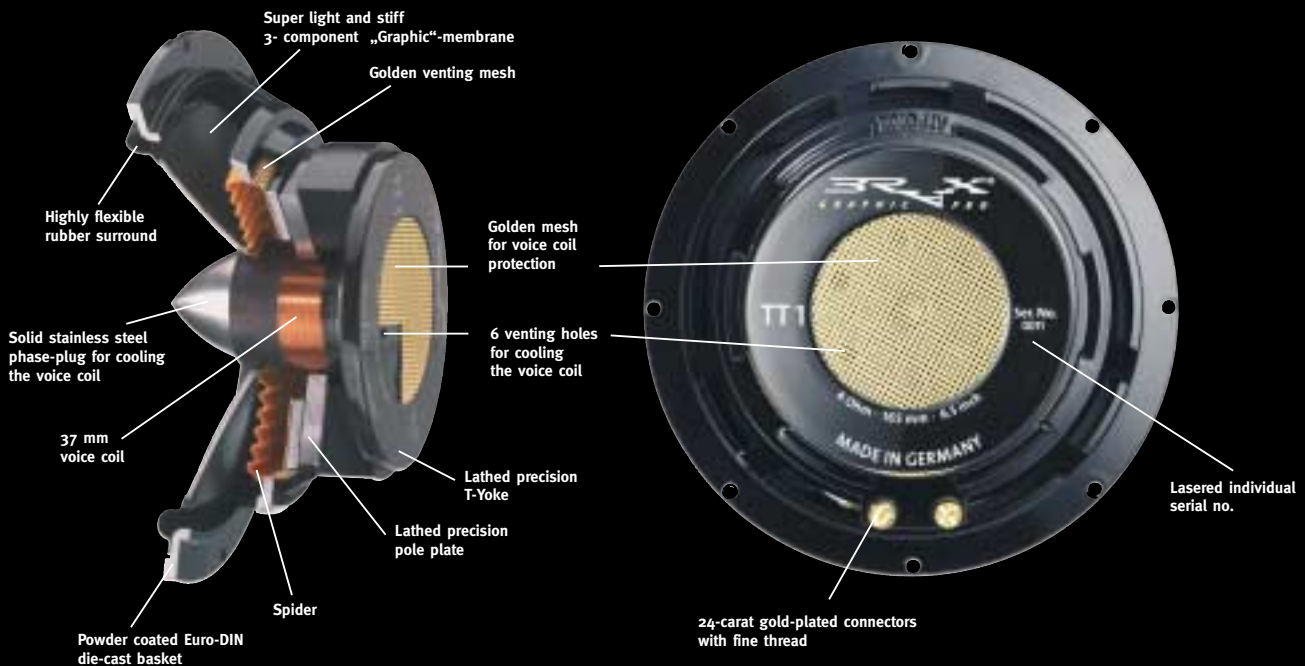


„Creating perfect loudspeaker systems is a matter of craft and precision, to compose their pureness and musicality is a fine art. Bringing both together is our tradition and makes up the result of our work.“

(Heinz Fischer)



BRAX GRAPHIC PRO Mid/Bass TT1



The basket

The GRAPHIC TT1 mid/bass operates in a powder coated die-cast Euro-DIN aluminium basket. With its 166 mm diameter and a mounting depth of just 64 mm it fits in all vehicles with DIN original speaker placement. The GRAPHIC PRO Set includes special safety screws that avoid twisting the basket during mounting.

For the control of the voice coil temperature even under great loads, the basket is provided with a venting system. To keep the connectors in a steady position, a specially designed part forms a unit with the basket.

The terminals

The TT1 is supplied with 24 carat gold-plated connectors with fine threads. A special feature is the +/- mark cut into the screw head. It allows tight fastening with a Torx screw driver. The fastening of the connectors to the basket is short-circuit-proof and twisting free due to special plastic sleeves. They prevent the connectors from being wrenched when connecting the cables.

The driver

The powerful 100 mm magnet system with its lathed pole plate is vented by 6 holes. They are protected by gold-plated aluminium meshes.

Together with the solid stainless steel phase plug they ensure the cooling of the 37 mm voice coil. The labelling as well as the individual serial number on the black polished pole plate is applied with a laser.

The diaphragm

The „Graphic“ diaphragm consists of high rigid polymethacrylimide foam which is normally used as core material in high-strength sandwich constructions (e.g. for airbus A340 tail fins or motor racing car parts). The upper and lower layer consists of a laminated and blackened glass fibre fleece. In between you find the layer made of polymethacrylimide foam. This „sandwich“ is shaped at a temperature of 300° and reaches an exceptional stability and stiffness.



BRAX GRAPHIC PRO Tweeter HT1



The housing

The GRAPHIC HT1 operates in a two-part lathed solid stainless steel housing. It eliminates 350 times more heat than a conventional tweeter housing. The front plate is shaped like a wing, which is the perfect design for superb radiation surface characteristics of the speaker.

Hidden fastening is no problem thanks to a thread on the back part of the housing. The hand lathed cable terminals are suitable for loudspeaker cables up to 2,5 mm².

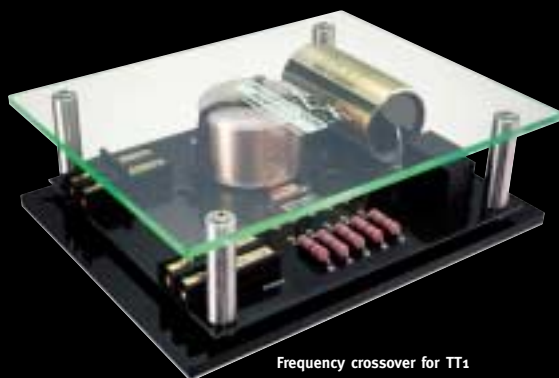
The driver

The 25 mm HT1 voice coil is driven by a drilled neodyme magnet system. The 6 holes in the pole plate not only ensure the coupling of the tweeter to the volume, they also eliminate heat. The coupled, dampened volume of the HT1 achieves a resonance frequency of 730 Hz.

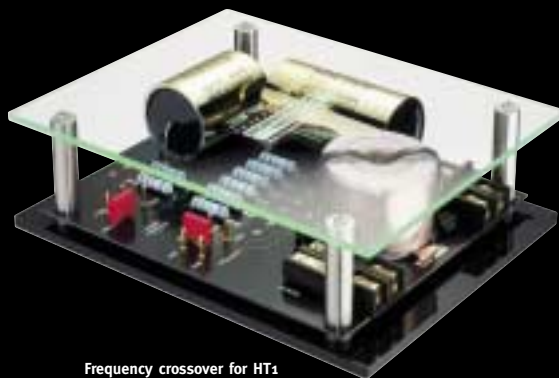
The diaphragm

The glass dome of the tweeter is manufactured in 5 separate processes. The first involves a glass fibre nonwoven mat that is immersed in a bath of special resin. The impregnated material is then also compressed in a heat press and baked in a mould to give it its final shape. The result is a yellow, paper-thin, mesh like dome. In order to render it air-tight, it is coated with a clear dispersion which also provides it with a glossy finish. The two layers are permanently bonded to each other by a type of artificial ageing process using UV light, which also gives the dome its golden colour.

After cutting the dome is bonded to a supronyl edge consisting of two 65µ thick layers of polyamide.



Frequency crossover for TT1



Frequency crossover for HT1

The frequency crossovers

The two crossovers were developed especially for the TT1 and HT1. They make the BRAX GRAPHIC PRO a perfectly tuned and

harmonic sound system of the reference class. A balanced sound in any car and at any volume is made possible by sophisticated features such as individual high pass adjustment.

BRAX GRAPHIC 6 High-End Loudspeaker System



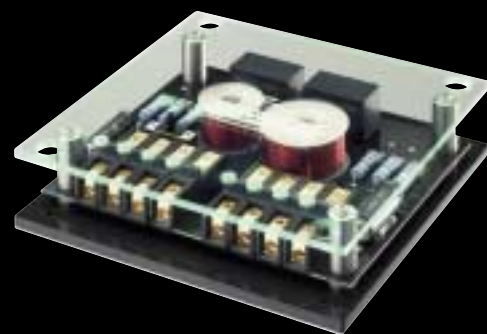
The GRAPHIC 6 system is the keener-priced version of the top-end GRAPHIC PRO system. A lot of details are taken from its „big brother“ and it benefits from a lot of basic materials that came with the exploration of the GRAPHIC PRO. The result is a truly exceptional system at an unbeatable price/performance ratio.

The **baskets** and the **connectors** of the TT 6 and the GRAPHIC PRO TT1 are identical and have the same advantages. With its 80 mm magnet system and a lathed pole plate with venting holes the **driver** is different from the PRO system. It cools the 25 mm voice coil. Labelling and individual serial numbers are lasered on the glossy black pole plate.

The „Graphic“ material used for the **diaphragm** makes the TT6 an exceptional loudspeaker of its class. In spite of its compact design it is very well able to give lowest frequencies a clear contour.

The **HT6 tweeter** also has a glass dome bonded to a supronyl edge. The ferrofluid cooling of the voice coil guarantees optimum heat elimination at high power output.

A sophisticated 2-way **frequency crossover** was designed in order to enable harmonic tuning of the speakers by using only selected and high quality components. Besides its technical advantages you find costly parts such as gold plated connectors which make this product a feast for the eyes.



Exclusive as the product itself:

The speaker systems of the GRAPHIC-series are delivered in high quality wooden boxes.

BRAX IPC Intelligent Power Caps

The Intelligent Power Caps from BRAX are an impressive example of what can be achieved in high-powered car audio systems with the combination of exceptionally high capacities and smart electronics. From the most subtle voltage fluctuations to the extreme loading peaks that result from low bass tones, the Intelligent Power Caps efficiently compensate for every power variable. The result from the smart electronics is improved amplifier performance and a high in car audio sound quality.

The IPC benefits in brief:

- Higher amplifier output power
- Digital voltage control
- Integrated 7-LED power tester
- Constant current charge control
- Incorrect pole connection protection with digital readout
- Over-voltage protection upwards of 17 volts
- Automatic turn-on
- Vibration protection
- Minimum internal resistance <0,9 mOhm
- Easy and fast installation



IPC 2.000.000

Capacity: 2.000.000 μ F
Diameter: 90 mm
Height: 282 mm
With digital voltmeter,
remote turn on/off optional

IPC 1.000.000

Capacity: 1.000.000 μ F
Diameter: 75 mm
Height: 282 mm
With digital voltmeter and
integrated Power Tester



Holder for IPCs

For easy and safe mounting of
BRAX Power Stabilizers

Material:
black, solid plastics
Diameter: 75 bzw. 90 mm

BRAX eXvibration Anti-Noise-Paste

The ultimate solution for sound insulation:

- Minimizes driving noises, eliminates resonances, oppresses vibrations and brings your sound performance to perfection
- Extremely flexible through a high share of glass fibre
- Brings your sound performance to perfection
- Easy to use, can be thinned out with warm water for better spreading at higher drying time
- Can be applied with a spatula in one operation only
- Very productive, 1-1,5 kg are sufficient for 2 doors
- Easy to apply on small and angle corners
- Can be applied on damping mats



New: eXvibration PRO
in 5kg buckets

BRAX Power Detector V-Control

Checks the power supply of
car audio equipment



- Easy dashboard or trunk installation
- Compact size:
W 89 mm H 41 mm D 20 mm
- Separate test input
- Universal use

Technical Data

Amplifiers

Model	X 2000.2	X 2400.2	X 2000.2 GRAPHIC EDITION	X 2400.2 GRAPHIC EDITION
Output power per channel:				
at 4 Ohms	2 x 190 W	4 x 110 W	2 x 265 W	4 x 135 W
at 2 Ohms	2 x 370 W	4 x 200 W	2 x 440 W	4 x 235 W
at 4 Ohms bridged	1 x 740 W	2 x 400 W	1 x 880 W	2 x 470 W
Frequency range	20 Hz - 20 kHz	20 Hz - 20 kHz	20 Hz - 20 kHz	20 Hz - 20 kHz
Variable crossover	15 Hz - 4,5 kHz	15 Hz - 4,5 kHz	15 Hz - 4,5 kHz	15 Hz - 4,5 kHz
THD	< 0,002 %	< 0,002 %	< 0,001 %	< 0,001 %
Signal to noise ratio	> 105 dB	> 105 dB	> 110 dB	> 110 dB
TIM	0,014 %	0,014 %	0,009 %	0,009 %
Damping factor at 4 Ohms	> 400	> 400	> 600	> 400
External fuse	100 A	100 A	100 A	100 A
Input sensitivity	300 mV - 7,5 V	300 mV - 7,5 V	300 mV - 7,5 V	300 mV - 7,5 V
Input impedance	10 kOhms	10 kOhms	10 kOhms	10 kOhms
Dimensions:				
Height	53 mm	53 mm	53 mm	53 mm
Width	238 mm	238 mm	238 mm	238 mm
Depth	470 mm	470 mm	473 mm	473 mm
Net weight	7,4 kg	7,4 kg	8,2 kg	8,2 kg

Speaker Systems

TT1 GRAPHIC PRO Mid/Bass

Power RMS:	120 W
Max. power:	180 W
Impedance:	4 Ohms
DC resistance:	3,5 Ohms
VAS:	21,39 Litres
Qts:	0,44
Sensitivity:	88 dB
Resonance frequency:	45,7 Hz
Frequency range:	52 - 2500 Hz
Diameter x mounting depth:	166 mm x 64 mm

Mid/Bass Frequency Crossover For TT1

Cut-off frequency:	2000 Hz
Dim. (H x W x D):	60 mm x 158 mm x 201 mm
Gold-plated connectors	

HT1 GRAPHIC PRO Tweeter

Impedance:	4 Ohms
DC resistance:	3,6 Ohms
Resonance frequency:	715 Hz
Frequency range:	1300 - 30000 Hz
Diameter x mount. depth:	63 mm x 31 mm

High Pass Frequency Crossover For HT1

Highpass Jumper Function:	+2 dB / +1 dB / 0 dB / -1 dB / -2 dB
Super Highpass Jumper Function:	0 dB / +1 dB / +2 dB / +3 dB
Cut-off frequency:	2000 Hz
Dimensions (H x W x D):	60 mm x 158 mm x 201 mm
Gold-plated connectors	

TT6 GRAPHIC 6 Mid/Bass

Power RMS:	100 W
Max. power:	150 W
Impedance:	4 Ohms
DC resistance:	3,3 Ohms
VAS:	21,26 Litres
Qts:	0,51
Sensitivity:	88 dB
Resonance frequency:	49,5 Hz
Frequency range:	58 - 2500 Hz
Diameter x mounting depth:	166 mm x 63 mm

HT6 GRAPHIC 6 Tweeter

Impedance:	4 Ohms
DC resistance:	3,6 Ohms
Resonance frequency:	1300 Hz
Frequency range:	2000 - 28000 Hz
Diameter:	45 mm

GRAPHIC 6 Crossover

Crossover frequency:	2500 Hz
Tweeter adjustment by switch:	-3 dB / 0 dB / +3 dB
Dimensions (H x W x D):	60 mm x 158 mm x 153 mm
Gold-plated connectors	

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