



**B.A.C.H. 12d = Bass Adjustable Coaxial Horn with 12" driver**

2-way coaxial and coplanar loudspeaker with Tractrix-horn, featuring fine adjustment in the low end and discrete adjustable midrange and highs.

Innovative and unique solutions, combined in a high-end concept, bring uncompromised sonic performance.

This product is handcrafted in Switzerland, on order only.



## Goals

The basic idea was the design of a high-efficiency loudspeaker combining several contradictory requirements allowing reproduction of living music as vector of intense emotions:

- **Relaxed listening** of all music styles, from very low to very high levels
- **The use of amplifiers covering all power classes**, explosive dynamics even with single-ended tube amplifiers with power as low as 1.6 W per channel
- **Reproduction of infinite details**, without projection, due to the placement of the driver diaphragms in a unique coaxial and coplanar configuration. This feature brings better spatial reproduction fidelity, too. In classic coaxial designs, the high-frequency driver diaphragm is situated far behind the low-frequency driver, resulting in huge high-frequency delay. Some loudspeaker-manufacturers introduced complex time-delay networks for the low-frequency driver to compensate this inconvenient.
- **Enhanced listening zone** (horizontally and vertically)  
The controlled directivity results in a smooth polar diagram in both planes.
- **Extreme dynamics** thanks to the very high efficiency combined with high power rating. That's the only way to avoid the audible thermal compression of classic loudspeakers.
- **Easy placement**, adjacent to a wall or even near a corner. The  $2\pi$  environment is integral part of the loudspeaker design. The fine-tunable bass-reflex openings and the discrete adjustable mid- and high range allow optimized integration in rooms of different size, damping rates and listening distances.
- **Less excitement of room resonance and echoes** due to controlled directivity and high efficiency. This can be explained by the (to easily forgotten) physical law of energy continuum.
- **Long term reliability** and value conservation due to oversized long-life components. All parts have been selected by numerical simulation, measuring and during hundreds of listening hours using objective and subjective quality criteria.

- Drivers for professional use, designed and built in Europe
- Bass/Midrange driver: Cast aluminium frame, vented core and spider
- Compression driver : Self-centering diaphragm, field replaceable
- Selves : Mundorf ribbon selves
- Capacitors : Polypropylène, loss angle < 0,0005
- Resistors : MOX and cement 10W
- Internal wiring : Swissonor cables in quad configuration
- Connectors: Laboratory connectors 1000V 16-32 A
- Soldering: Silver solder

## Technical specification

Continuous noise AES standard.....300 W  
Program power (6dB crest factor).....500 W  
Peak power <10ms.....1000 W  
Rated impedance.....8 Ohm  
Sensitivity (Thiele half space reference efficiency).....97 dB(1W/1m)  
Maximum acoustic output (1 loudspeaker).....117 dB  
Maximum acoustic output (pair of loudspeakers).....123 dB  
Frequency range in-axis .....46 – 18'000 Hz(+/- 3dB)  
Recommended amplifier rating (tube amps).....1.5 - 30 Watt at 8 Ohm  
Recommended amplifier rating (solid state amps)..... 20 – 80 Watt at 8 Ohm  
Maximum reasonable amplifier power.....400 Watt at 8 Ohm  
Frequency dividing network, free air cabled.....1,4 kHz, 12 dB/octave  
Low frequency adjustment range.....+/-2 dB continued  
Medium/high adjustment range (2 + 8 kHz).....+/-1,5 dB discrete  
Polarity : Positive voltage on red terminal gives forward cone motion  
Housing : Handmade from plywood with different veneers, 2 component lacquer  
External dimensions (without stands)..... W x H x D 505 x 785 x 410 mm

Hearing is believing, come in for a listening session at:

