

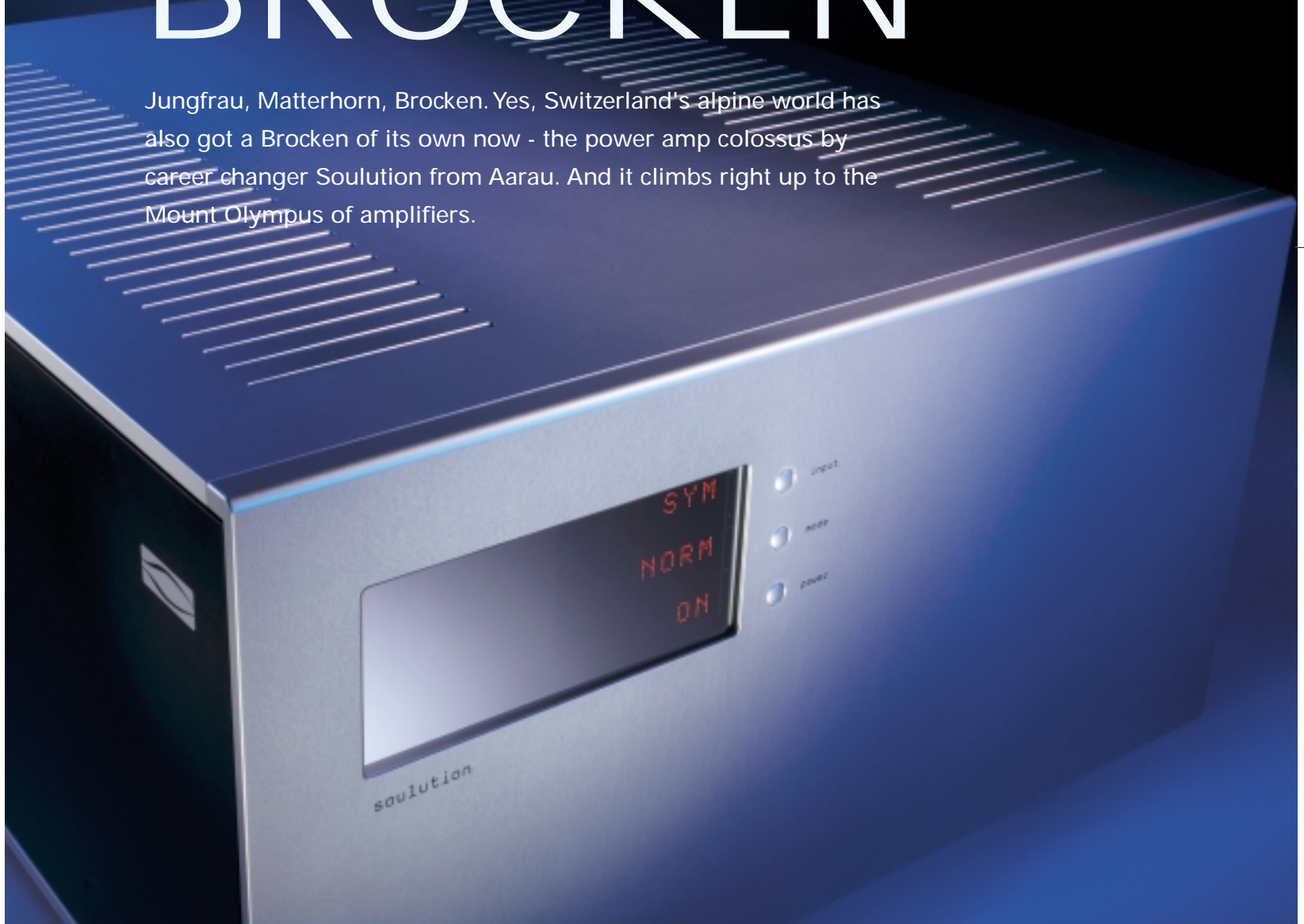
**STEREO**

# STEREO

MAGAZINE FOR HIFI • HIGH END • MUSIC

## SWISS BROCKEN

Jungfrau, Matterhorn, Brocken. Yes, Switzerland's alpine world has also got a Brocken of its own now - the power amp colossus by career changer Souldution from Aarau. And it climbs right up to the Mount Olympus of amplifiers.



Reprint from STEREO 10/2005

by Matthias Böde

The order of the gods has put sweat before enjoyment: about 75 kg must be moved in the form of the stereo power amplifier Soulution 710. With this giant amp the yet unknown manufacturer from Dulliken near Aarau in Switzerland sets a milestone in more than one respect that will probably leave quite some competitors baffled.

Winning you over with its large smooth surfaces and an exquisite craftsmanship, the unit which signals relevant operation modes through the display on its 5 mm aluminium front panel, can only be found in a few places

right now. But things could change as soon as the qualities of this whopper that are exorbitant in every respect get around. We don't want to beat about the bush or keep you in suspense: this power amplifier belongs to the best we've ever heard.

This may come as a surprise: true, Cyrill Hammer and Roland Manz who launched the Soulution project - a pun on the words soul and solution - are genuine highend fans, but their professional occupation covers quite different fields of electrical engineering (see

box). However, designer Christoph Schürmann joined the team who e.g. had developed the series 500 for Audiolabor in the 1990s and who with Spemot got the go-ahead for components where quality and determination is all that matters in the first place, not the price. Now the 710 is the first fruit of this cooperation, the preamp 720 will follow soon and a CD player is in the pipeline just like a cheaper product line whose components cost about half of their great role models.

In the run-up to the development of the 710 the goals were defined. A power amplifier

## Soul Brothers

**At Soulution three hearts beat in phase for hifi**

Soulution is a brand of the Swiss Spemot AG which produces e.g. electric motors for the automotive industry and tools. They are even the market leader in the field of refrigeration engineering for lorries. But managing directors Cyrill Hammer (r) and Roland Manz (c) also have a strong love-affair with high fidelity.

Back in 1997 the two of them decided to distribute Audiolabor products in Switzerland. Soon their commitment

**The Soulution team with the fully-balanced pre-amp 720 (from 10,000 Euro) which is soon to follow.**



extended deeply into the production. Spemot's know-how went into development and production, but couldn't turn off the company's insolvency after all.

A little later they came up with the idea of an ultimately high-quality line of their own. Soulution was born. From the Audiolabor days Christoph Schürmann (l) is still on board who - now as a Spemot employee - is already working on the next projects.



was to be created combining the technical benefits of tubes and transistors: an ultra-stable amp working correctly both in the level and time domain. The first two points were fully confirmed by STEREO's measuring lab where the Soulution delivered a remarkable performance. And we firmly believe in the time-correct behaviour of this monster amp. The upper frequency ranges are absolutely pristine, the precise reproduction of space can only be called perfect which also goes for the utterly conclusive structure of the acoustic images, something we like to refer to as "internal organization". An amplifier that reveals problems here may still be capable of sounding "nice", but never so "right" like the Swiss Brocken.

At first the colossus tended to act a bit

stiff in the hips; it seemed like a sportsman with cold muscles and was therefore the bookkeeper of the tones rather than their fiery lover. But after some hours of warm-up and work-in, this cool deliberation gave way to a passion that shows a great deal of commitment for its cause.

Any kind of music turned into an experience and had we not known that with Schürmann a well-seasoned designer of the expressive highend world stands behind the 710, we could never have assumed such a musicality in this newcomer. For instance, the wonderfully arranged blend of voices that Brian Wilson's album "Smile" is veined with on its tracks from "Wonderful" to "Surf's Up", was indeed celebrated with a wonderful, sonorous tenderness and smooth clarity. In this context it was also noticed how much overview and resolution the Swiss lady revealed when they were all singing and playing together. Never was the musical head of the Beach Boys

endangering the choir nor the

to drown in the swirl of the intricate sound collages. No matter how complex the signals were, the Soulution arranged and staggered instruments and voices alike with a sure hand.

It's not easy to write about machines of this power amp's calibre. How do you comment on perfection? Homer once got out of his fix by describing Helena's beauty not in the direct way but through the effect it had on men. And though our bulky amp embodies under manifold aspects the extreme opposite of the Grace from Hellas, it moves more than just the loudspeaker diaphragms. For example, how it recreates convincingly the dull atmosphere of an evening in the English province in "Blood On The Rooftops" from the old Genesis album "Wind & Wuthering", how it makes Phil Collins' voice sound precisely centered from the depth of the recording room after the muted guitar intro, the whole being shrouded in

### CUE

#### Microphony

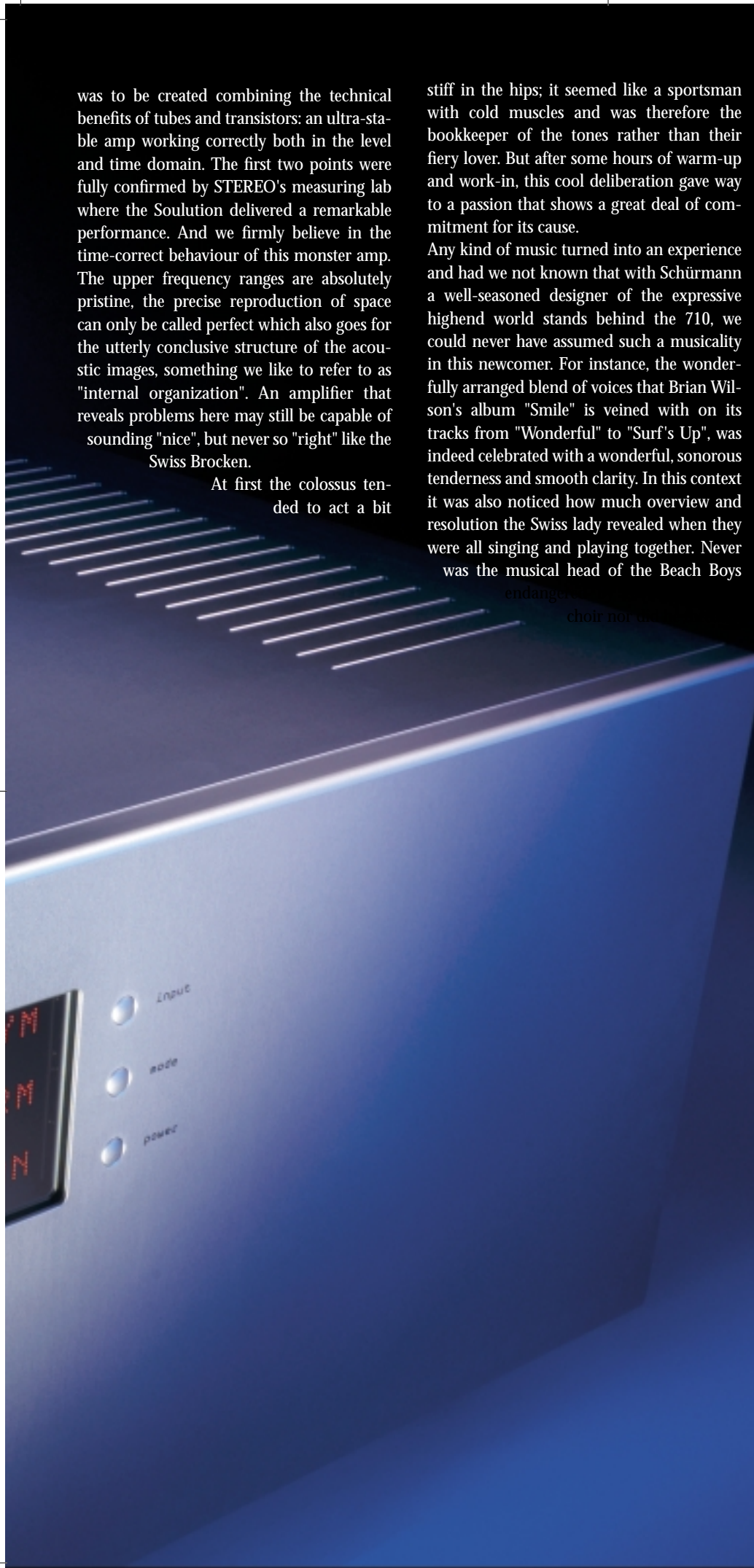
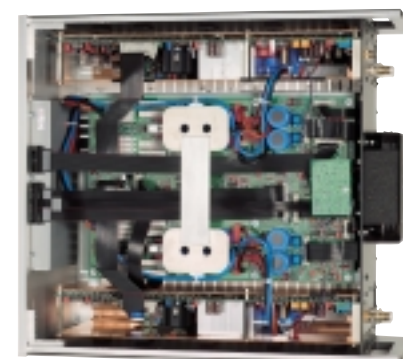
By microphony we understand resonance stimulation by airborne sound. But the 710's massive base plate should also be resistant against impact sound.

delicate synthesizer clouds like distant veils of rain lining the rear of the soundscape which is divided into plots in the style of a well-tended park - this is simply great

art. In moments like these we feel honestly inclined to attribute to the Soulution that "soul", the instinct for musicality, as it is conjured up in the manufacturer's name.

Don't you dare think we are speaking of trifles or splitting hairs, of audiophile molehills blown up to mountains. With such products like the 710 - the name may suit the amp's sober outward appearance, but belies its inspired sound - they venture into the aura of absoluteness. And the less mistakes are made at the beginning of the chain, the wider the gate to this world will open. Provided the source and preamp play on a similar level, the loudspeakers have practically no chance than to sound gorgeous.

The ample volume is well filled with the electronics. Both its mechanical and electrical construction shows a symmetrical design.



And this goes also for tremendous volume settings. Although the 710 is no watt giant according to its specs sheet, it offers more than enough reserves under any circumstances. Among others, we made it pump "Are You Going With Me" by the Pat Metheny Group in the live version from the "Travels" album into the listening room - however, it revealed no signs of weakness nor did the

range of electronic sound mountains piled up by keyboard specialist Lyle Mays on this track begin to sway.

What remains is the experience of music. Once again: Souolution's 710 is a model of perfection without pronounced individualism. It just amplifies what goes in. A heavyweight in every respect which remunerates the sweat it takes to put it up with loads of enjoyment.

### TEST-CHAIN

**TURNTABLE:** Transrotor Fat BobS/Rega RB300/ Benz ACE L

**CD PLAYER:** Accuphase DP-67, Esoteric X-01

**PRE/POWER AMP:** Mark Levinson No.320S/No.434

**LOUDSPEAKERS:** Dynaudio Evidence Temptation, Lumen White White Light, Wilson Audio Sophia

**CABLES:** HMS Gran Finale (mains, NF, SP), Mudra Akustik Silvercom (NF, SP)



Cinch and XLR inputs plus a pair of solid speaker terminals are waiting (above). Small switches operate the few control options.



### SOULUTION 710

ca. €17900  
Dimensions: 48 x 28 x 53,5 cm / 18.9x11x21.1" (WxHxD)

Warranty: 5 years  
Distributor: Spemot AG,  
Tel.: 0041/622853040

[www.soulution-audio.com](http://www.soulution-audio.com)

What a power amp! The Souolution 710 dashes right into the premier league of top references. Technical as well as acoustic challenges simply bounce off from the thick cabinet walls of the Swiss amp. The innovative and obviously ultra-stable circuit design is complemented by excellent specs and sound qualities that lift the Souolution into the world élite. Top reference!

### LABORATORY

Lab chief technician Rolf Hähle has hung the test certificate for the Souolution 710 in a golden frame over his measuring desk. This power amp is a stability wonder: half load equals double power here. Phase shifts will not even produce the slightest drop-offs. At eight ohms the amp delivers 122, at four ohms 243 watts continuous power per channel. With 2 x 264 watts at four ohms the peak output power is only a bit higher. Top specs also in the distortion domain: 0.0004/0.0001/0.0026 percent THD, 0.0012/0.0022/0.006 percent intermodulations (each at 50mW/5W/Pmax - 1dB). With 108/88.4 decibels (5W/50mW), the S/N ratios are downright magnificent. And with an unbelievable 86 dB the channel separation is exorbitant. The uncompromising dual-mono design takes effect. The output impedance is a practical 89 milliohms. With 10 kilohms the input impedance is relatively low, but won't confront normal preamps with problems. Power consumption of the Souolution 710 is twelve watts in standby and approx. 240 watts in no-load mode.

### FEATURES

Display for selected input, operation mode and status (three switchable brightness levels). Remote activation via the Souolution preamp. RCA and XLR inputs. Extremely low-noise fan.

### STEREO-TEST

### SOUND QUALITY

100%

### PRICE/QUALITY

★★★★☆  
Very Good

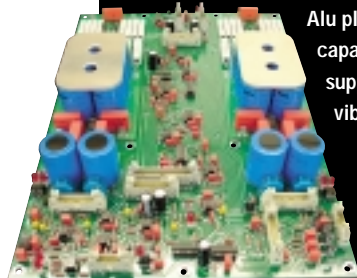
## Technical-Highlights

Besides musical soul, „Souolution“ also promises technical solutions

The 710 features a symmetrical dual-mono design. The layout was tuned for shortest signal paths. To keep losses at a minimum, all current-carrying parts have massive copper rails on their outputs. Many circuit and power supply components have a mechanical damping.

The 710 draws its power from two 1000 V/A transformers with discrete rectifiers. The audio mains supply has four capacitors of 33,000 microfarad each. In all, the power supply offers a storage capacitance of 244,800 µF. Ten discrete power supplies ensure a trouble-free operation of the signal stages.

Alu plates protect some capacitors on the power supply pcb against vibrations



The 14 power transistors per channel are mounted on thick copper rails



The heart of the 710 is an unconventional zero-feedback voltage amplifier consisting of two linearized stages which are supposed to go up to an upper limit frequency of 12 Megahertz for optimum phase coherence. Current amplification takes place in three stages, each of them covering only a very small and hence almost linear range. A weak and extremely fast overall negative feedback increases stability and levels out drift effects.

The temperature of the 14 power transistors per channel is permanently controlled to keep the closed circuit current constant irrespective of the load. To minimize differences in temperature between the semiconductors, these are mounted on 6 mm copper rails. Cooling is achieved mainly through the alu base plate of more than 1 cm thickness, which is also supposed to avert microphony.

Total sophistication: a massive use of single diodes instead of conventional bridge rectifiers in the power supply



The screenshot shows a multi-layer PCB layout that was CAD-designed as it is usually done today.

