



# CLASS A COLOSSUS

Progressive Audio has been following its own path since the mid-1990s, and the A 901 – with its exotic-looking silicon carbide transistors and Class A technology including switching power supply – continues this story.

The history of Essen-based Progressive Audio began with loudspeakers: more precisely, it began with the „Elise“, a speaker with an quite angular exterior, skilful tuning and an excellent, timelessness sound coupled with a very smooth balance, as the test in STEREO 7/99 confirmed.

But that was a long time ago, and company boss and mastermind Ralf Koenen has long since proven that he has mastered timing and timing issues effortlessly, not only with multiway loudspeakers, but also with the coaxial constructions in the „extreme“ series.

He has also been working intensively and successfully with electronics since

2001, creating amplifiers, phono stages and CD players. The predecessor of the A 901 we have her, the A1, found its way into the hands of our editorial team in 2004 - and into the ranks of the best of its kind.

## No compromise design

When Koenen visited the editorial office with his current baby and his own cables in his luggage to discuss the technical features of the 901, it was clear that,

despite all the similarities to its ancestors, the new amplifier has undergone an external transformation. There are now controls on the front panel for input selection and volume – if the remote

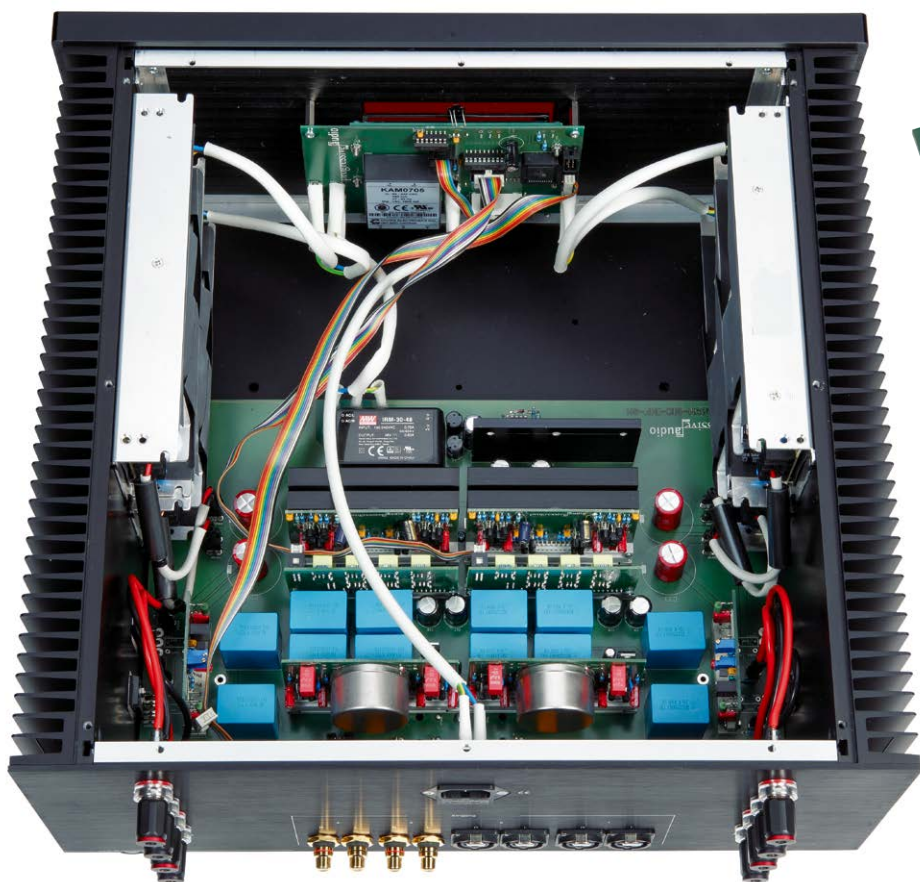
control can't be found – although for design reasons labeling has been deliberately dispensed with.

Also clear was that Koenen was proud of the solutions he had found for the problems he set himself when he embarked on the path of making the most perfect amplifier possible. His ideas revolved around several aspects he considered to be extremely important: „great broadband capability for a „fast“ sound was right at the top of the list of“ must haves „.

And when it came to the operational side of the amplifier, he decided early to abandon all fashionable trends or solutions with even a hint of compromise. Consequently, only a pure Class A concept was considered, and having decided on no compromises there was no choice but to go for a symmetrical, channel-separated structure, with the consequential need for more components – and strictly selected ones at that – in order for symmetry to make sense.

## Suits all speakers

There's no shortage of feedback-free amplifier concepts out: some are very successful creations among them, but there are also many devices for which you have



▲ Plug-in card technology and switching power supplies: Progressive Audio follows its own ideas of the perfect amplifier.



▲ The silver boxes are the input transformers built by Progressive Audio itself.



▲ Switching power supply units instead of thick transformers and electric batteries: the A 901 from its modern side

to search for the right loudspeaker, simply because a small damping factor and a wobbly load stability almost rule out any pairing – this applies to both tube and transistor amplifiers.

Koenen wanted nothing to do with such imponderables, so although the A 901 also has a weak attenuation factor due to the lack of overall feedback, Progressive Audio promises the highest enjoyment and most dynamic sound, even on loudspeakers with adventurous impedance curves.

Yet the A 901 doesn't look like a powerhouse on paper, so in order to ensure this performance even on low-impedance loudspeakers, an excellent and preferably oversized power supply unit is required. But if you look at the 901, you'll be thwarted in your assumptions – there are no huge toroidal transformers, no epic accumulation of electrolytic batteries of epic proportions.

Koene's solution is a switching power supply, with the designer having put a lot

of thought, energy and money into this in order avoid slowing down the circuitry. After all, there's not much point in building your map for power and speed, then hobbling it with the power supply.

The input transformers, like other amplifier modules, are mounted on a circuit board using service-friendly plug-in card technology, and proved quite a challenge – not least because Progressive Audio chooses to manufacture them itself, complete with their very small windings and a bandwidth of up to 80 kHz. These current transformers also provide interference-free signal transmission and relieve the output stage of the connected source device by galvanically isolating the inputs, while Koenen also promises perfect balancing of the unbalanced inputs. Another special feature of the transformers is that they do not exhibit any of the otherwise usual and inevitable resonances in the core material, as Koenen emphasizes.

Something else stands out when you look inside: the volume control uses not



▲ Plug-in card technology ensures service-friendliness and updateability.

a conventional potentiometer, but rather a relay matrix of selected and trimmed resistors. Working in 128 steps, this ensures the volume is adjusted to exactly the same level on both channels, without distortion; there's also remote operation via the metal handset.



The pride of the developer remains: the output stage section is built up with silicon carbide transistors, implemented without any feedback, these Infineon devices having a characteristic curve even steeper than that of a tube. The advantages that this brings are, according to Koenen, go well beyond the scope of this report; but in our measurements and sound alike, this amplifier delivered a completely convincing performance.

It worth mentioning – because you can hardly overlook it – the quality of the finish: the aluminum casework is anodized in natural or black, and the clearly legible display is available in blue or red, all of which inspires confidence and give the amplifier an air of being made for all eternity.

### The vice squad

Amplifiers without feedback are often said to have a softened, almost spongy lower frequency range, but those who have experienced flamenco guitars, stormy strings or an agile percussionist over the A 901 will quickly reject this idea, so vice-like is the grip this amplifier exerts over the speakers.

The bass is not just audibly well-extended, but also clean and perceptibly powerfully perceptible, and indeed any impulses, no matter what the frequency,

are beaten out with a speed, an almost explosive power, that's such a joy. The quality of musicians such as Joanne Shaw Taylor, who sits between Beth Hart and Norah Jones, is served up on a silver platter, the performance never lacking flexibility, flow and charm.

Musical structures always remain in the right order at the right time, as if held by an invisible string, but always convey the feeling of being able to pursue their activity without any restraint – to thrilling effect! The pressure the 901 is able to build up in the vocal range is not inferior to that available from the most captivating tube amps I know, and while the way it delivers Eva Cassidy isn't quite in the 300B tube class, it scores with its flawless balance in both fine and coarse dynamics.

The sound is spacious without becoming hazy, being clearly outlined despite all the generosity, meaning you can immediately sense where the recording took place – or where it was manipulated on the mixing desk!

The bottom line is that Progressive Audio has delivered an exclusive, future-proof design, combining absolutely convincing practicality with true high-end ability. And best of all, this clever stuff is „Made in Germany!“

*Michael Lang*

#### KEYWORD

**Winding capacitance:** Capacitance produced between the winding and the core – usually iron – of a transformer.



▲ Two inputs each on RCA phonos and XLRs, with high-quality bi-wiring loudspeaker terminals from Furutech

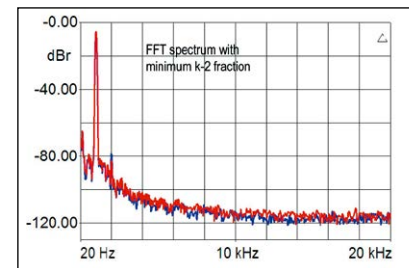
## PROGRESSIVE AUDIO A 901



11500 €  
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Outstanding musical qualities mean that, with their own independent technical approaches, the Essen-based company makes one of the world's top amplifiers. Everything is right here: sound, workmanship, exclusivity - and even the price is right.

### MEASUREMENT RESULTS



Continuous power (8 Ohm / 40hm)	33.4 W/60 W
Pulse power 4 Ohm (1kHz)	87.6 W
Distortion at 50mW/5W/1dB Pmax	0.02%/0.07%/0.3 %
Intermod. 50mW/5W/1dB Pmax	0.04%/0.2%/0.4 %
Signal-to-noise ratio at 50mW/ 5W	79.4 dB/85.2 dB
Damping at 4 Ohm (63Hz/1kHz/14kHz)	8/7/7
Upper cut-off frequency (-3dB/40hm)	>80 kHz
Crosstalk Line 1 > Line 2	82.4 dB
Synchronization error volume at -60dB	0.02 dB



#### LABORATORY COMMENT:

Very broadband and „fast“ switching, first-class measured values. Noise, hum, crosstalk, channel balance values are among the best, while the low damping factor and the manageable power delivered in pure Class A operation are remarkable from a measurement point of view.

### FEATURES

Symmetrical design, double mono; switching power supplies, balancing of the RCA inputs via transformer; display, remote control; available in black or natural aluminum

### STEREO - TEST

SOUND QUALITY **98%**

PRICE/PERFORMANCE



**VERY GOOD**