

HARMONY IN MARRIAGE IS OVERRATED



It was the outstanding best seller when it came to high-priced speakers during the late eighties – and with its four 165-centimeter-tall columns, the nightmare of many wives.

Back then it was a true battle of materials, which the legendary developer, Arnie Nudell, had come up with by creating the second largest model of the IRS range below the top-range Infinity Reference Standard. A loudspeaker designed to reproduce even the deepest frequencies in large rooms at high volumes, and all at a price that appeared ridiculous when compared to the current requirements for large speakers – depending on the dollar exchange

rate, between DM 35,000 and DM 45,000 were due if you wanted to load the four large boxes, plus one small one, onto a van. It had to be a van because the maniacal developer, trained mathematician, physicist and amateur clarinetist showed a willful blindness to the monstrous dimensions for optimum sound in order to uncompromisingly design the Beta purely according to tonal quality.

Due to the marketing strategy chosen by the former importer, Achim Grigg, prices

as low as DM 20,000 were possible. These days, you'd be lucky to find a Beta for this price on the secondhand market, being, though, more or less in need of repair.

Could there be something more?

What was it that turned the Beta into something special that made customers become patrons at Hi-Fi studios and regularly caused people to check out the speakers in stores that had them on display – and still makes the experienced high-end customer nervous even today?

We already talked about the five boxes that made up the delivered set: two bass columns each with four 30 centimeter woofers whose membranes are made of

a polypropylene/graphite mixture, as well as two midrange and tweeter panels with a dipole design – meaning the sound radiates from the front and back. These are equipped with a whole armada of various magnetostats that can play down to around 100 Hertz. The 5th box contains an electronic crossover that also includes a servo control unit for the bass unit, which is yet another special feature of the system. Beyond that, it offers a variety of settings to ensure optimal bass reproduction and a homogeneous connection to the tweeters and midranges.

Sophisticated in every way

That the Beta needs a lot of floor space due to its four columns is clear. It should also be clear that the bass energy available on demand as well as its spatial reproduction

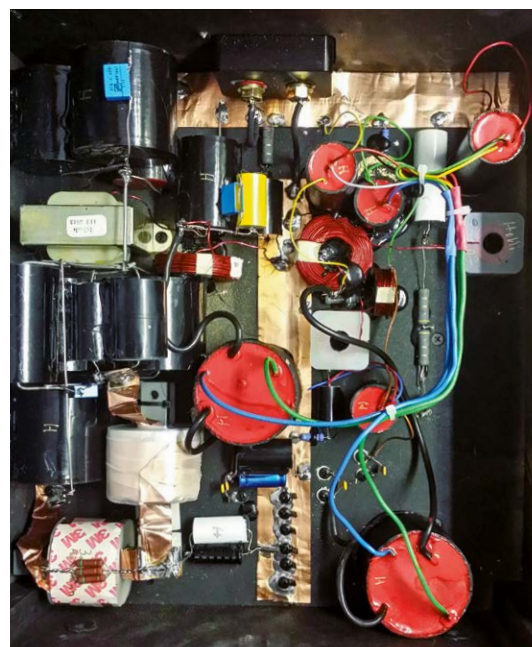
capabilities could hardly unfold its inherent power in small rooms. At least 30 square meters are needed as well as enough space on all sides. But the Beta welcomes even twice or three times as much space.

However, this speaker has a few more pitfalls, at least before the makeover from Bayer Soundworks, which make dealing with it a challenge – a factor which led to heated discussions between supporters and opponents of the former Superbox during its “active” time from 1987 to 1992: opponents eagerly pointed out the completely ramshackle construction, which beyond that was also poorly manufactured, while the enthusiasts from their perspective praised the sheer limitless qualities.

And both parties were right: A speaker with such poor efficiency of about 83

Infinity IRS Beta

Production period: 1987-1992
Manufacturer: Infinity, USA
Price: approx. DM 35,000 – 45,000
Price today from € 8,000*
Unrestored



▲ The passive crossover, after it was completely rebuilt by Bayer.

A total of six midrange and tweeter units need to be wired up and adjusted to their optimal operating range using crossovers housed in the base. The individual tweeter units are only slightly dampened to the rear; there is an Emit tweeter on the front and the back. ▶



◀ By separating the bass section from the midrange/tweeter section, the optimal placement for each unit can be found.

*All prices listed are German retail prices incl. VAT valid at the time of evaluation.



◀ A woofer with a new foam bead and stiffer dust cap than in the original.

Nelson Pass, who formerly built Threshold amps, or his colleagues from Audio Research to Mark Levinson up to Jeff Rowland – enter into a technically challenging but financially rewarding golden era. Nudell himself always openly favored the products from Pass and Johnson, but of course every Infinity dealer had his own secret tip, which explains many a demonstration with moderate to sad quality and various plumes of smoke rising from amplifiers.

And now you think that's over and done with? Unfortunately I have to give you another bitter pill to swallow: The construction with the active crossover – you remember the fifth box – resulted in the technical necessity of the so-called bi-amping operation, in which one amplifier was responsible for the Infinity proprietary development in the magnetostatic panels while its colleague was in charge of driving the bass columns in a controlled

and powerful way. Therefore two stereo power amplifiers were the minimum requirement, or rather four mono-amplifiers, if you really wanted to be part of the uncompromising group of enthusiasts.

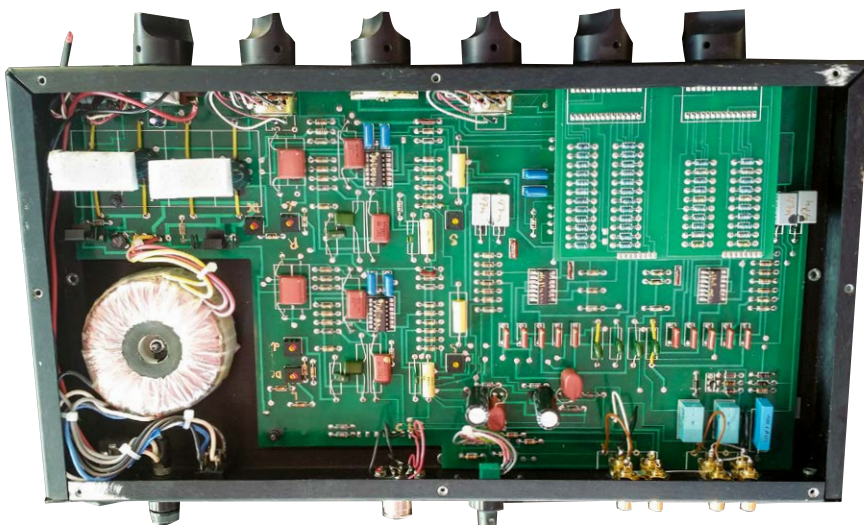
Now it is also becoming clear that the Beta, although expensive, yet ultimately worth it given the time and effort put into it, in the end became quite costly if you wanted to get the most out of it. This is because you could easily spend twice as much for the electronics. In this context, there is certainly no need to mention that you also had to go big when it came to source components and cables.

Those who now managed to sonically blend the bass, midrange and tweeter units into a harmonious whole through diligent setup and correctly cabled as well as carefully matched adjustments in the crossovers – up to the adjustment of the bass amplifier's gain factor to the feedback loop of the servo circuitry for the bass – was pretty damn close to a high-fidelity heaven and could be sure of becoming the destination of many a pilgrimage for their friends. It was the golden era when

decibels of course required power. Since the impedance of 1.1 Ohms ran in the middle-high frequency range near the zero line and on top of this there were phase shifts, which were not far removed from gyroscopic rotations, the power plants had to enforcedly provide current delivery capacity which was only achievable with strong power supplies.

In effect, this led to the best and thus almost automatically most expensive representatives of the amplifying craft being capable of sounding out the tonal merits of the Beta system. Ultimately, Nudell's constructions (because even the smaller models of the Kappa series were very sophisticated) helped developers – like

Many new high-quality capacitors and ICs can be found in the active crossover after the renovation. ▶



The original cheap connectors have been replaced, and the color-coding now matches the channels. Another new feature is the continuous adjustment to the bass amplifier. ▶





▲ The active crossover allows the optimal adjustment of the woofer towers to room acoustics and „satellites“.

at least the male part of the population still got together often to listen to music, while the vast majority of their female counterparts retreated into an internal emigration and attributed, disapprovingly but powerlessly, the passion of men and their buddies to mental confusion and a lack of aesthetic style.

Points of failure and wear and tear

Just imagine that, a quarter of a century ago, you bought a car or a watch or made some other high-value acquisition that you regularly used but never let be inspected or serviced. How much of the original quality would have diminished over the years? It is no different for a loudspeaker whose drivers have been moved countless times, exposed to UV radiation as well as changes in temperature and humidity – and yet in most cases a workshop is only first sought out when nothing functions anymore, the speaker or its individual components refusing to work. Hartmut Bayer, former product manager of Infinity in Germany, specializes in such cases. From all over Germany and its neighboring countries, owners of old, high-quality Infinities come to him in order to bring their dusty treasures back to life. Bayer is aware of the flaws that occur over the years as well as some structural weaknesses of the speakers and the crossover. He also casts a competent glance at the innards and replaces parts, some of them with components made especially for him. About 80 hours of pure bench time are required by the native Hessian to renew the bass beads, rid the magnetostats of rust pitting and equip them with new magnets, completely rebuild the components of the passive crossover – such as inductors and capacitors that are partially protected by a

patent – housed in the base of the dipole columns, to plant a number of new components and cables into the active crossover together with a new set of speaker terminals, drill holes for threaded bushings to take the floor-spikes and much, much more. In short, the Beta is given a second life and made fit again for another estimated 20 years – at least.

When faced with such a long lifespan, who can be bothered with monstrously bureaucratic words like the ‘disposal of old appliances’? “Since we have the original schematics and know the speaker from dozens of setups, we can eliminate its real or presumed weak points.

Many stories were simply made up about the Beta in order to create a bad image and sell more user-friendly speak-

ers. But whoever was able to hear them that goes into restoring a Beta now, it doesn’t make much of a difference from a financial standpoint if we use the best available parts right away. Thus, we have the capacitors hand finished in Regensburg or the woofer’s diaphragm beads delivered from America, use extremely powerful magnets for the midranges and tweeters and much more...”

Monroe instead of Moss

If you listen to a Beta now, after years of experience with numerous high-quality and even more expensive speakers, it’s like meeting your childhood sweetheart again. You can hardly resist the tonality of its charm; its musical smile is too wide, open and honest to complain about its tiny wrinkles. It whispers softly in your ear, laughs loudly and boldly, whereby the laughter never sounds fake and easily sweeps the listener away. All of this assuming you are not into asceticism with regard to music, because the Beta is still a loudspeaker that paints opulent pictures with broad brush strokes, portrays the flesh and blood of the instruments and artists and is adverse to the skinny-obsessed world. Definitely more Marilyn Monroe than Kate Moss.

It is not at all surprising that Paul McGowan, owner of PS Audio, friend and former business partner of Arnie Nudell, indulged himself by using a Beta for his presentations in a permanently over-crowded room last year during the Rocky Mountain Audio Show.

Michael Lang

FRESHLY RESTORED,
THE BETA IS STILL FASCINATING
TO THIS DAY

ers. But whoever was able to hear them under optimal conditions will certainly never forget this experience,” says Bayer in favor of the Oldie.

“We have replaced sound-quality compromising and worn-out components such as open wire wound potentiometers for fine tuning the mids and tweeters called Semit, Emit and Emim with sound-neutral and wear-free step switches, secured all diaphragms without sound interference against overload and exchanged cost efficient parts that were installed during mass production with elaborate and long-lasting solutions. That does not mean shoddy equipment was used back then, but that not a lot of attention was paid to every last detail. With respect to all of the manual labor

LINKS

- www.bayer-soundworks.de
- www.davidsaudio.com
- www.bobbyshred.com/infinity.html