

German Physiks Unlimited Mk II loudspeaker (slight return)

by Alan Sircom

Towards the middle of 2013, German Physiks delivered a pair of Unlimited Mk II loudspeakers to the *Hi-Fi+* offices. Towards the end of 2015, German Physiks did precisely the same thing, in order to show precisely what had changed in the intervening years. Even though the Unlimited Mk II is a child of the 2010s, German Physiks was prepared to revise one of its most successful designs, but while many brands would be content to call these changes an entirely new version, German Physiks is satisfied with quietly making a better product.

Let's loop back 31 issues and discuss the Unlimited Mk II itself. Born out of the 2010 'Limited II' (a 100-pair limited run designed to show what the company can do with a lower than usual price tag). The Limited II proved extremely popular, with all 100 selling out fast, so the Unlimited Mk II followed in its wake. A tall, slender, omnidirectional floorstander, like many others in the German Physiks line, the key cost saving exercise in the Unlimited Mk II was making a four-sided enclosure instead of the octagonal cabinet of the next in line HRS-120.

The Unlimited II features the company's own Dicks Dipole Driver, or 'DDD'; a carbon fibre driver with a true 360° horizontal dispersion. Based around a late 1970s concept by German engineer Peter Dicks (hence the name), the DDD concept works with the inherent properties of drive units, rather than treating these functions as limitations. A cone will work pistonically at low frequencies, but will shift to bending wave mode and finally fully modal radiation properties as the frequency rises. Rather than try to find 'work arounds' to overcome these intrinsic aspects of a loudspeaker, Dicks proposed designing a loudspeaker that utilised these inherent functions of a drive unit, effectively producing a near full-range four-way loudspeaker in one cone.

Those with extremely long memories might also recall the Ohm loudspeaker system, which featured a similar driver designed by the late Lincoln Walsh. This 'bending wave transducer' design had the same basic conical section (beautifully described by Dick Olsher in our sister title *The Absolute Sound* as looking, "like a giant inverted ice cream cone"). The pulsating drive unit was ahead of its time, and way ahead of the materials science of the early 1960s. Fast forward almost 20 years and cone materials like lightweight titanium allowed the bending wave transducer to come of age, and subsequent developments in carbon-fibre meant the DDD unit improved still further.

The resultant design looks unlike most loudspeakers, with a top pod containing the driver's magnet, voice coil and spider, with the cone itself facing down into the top of the main enclosure (the 'giant inverted ice cream cone' coined by Olsher). There isn't a loudspeaker basket as such, just a series of

"beautifully described by Dick Olsher in our sister title The Absolute Sound as looking like a giant inverted ice cream cone."





stainless steel rods to support the top of the drive unit. A more conventional glass fibre/carbon fibre 200mm down-firing unit sits at the bottom of the cabinet, providing bottom-end reinforcement.

So far, the Unlimited Mk II remains exactly the same as before. There are several new high gloss finishes (called the Ultimate Unlimited, which includes the gloss black model we tested), and an all carbon-fibre finish called the Unlimited Carbon, which is mostly aimed at Asian markets. The sound is identical to standard Unlimited Mk IIs, but the difference between the acoustic vinyl and black high gloss polyester finish is £2,000; although this is fairly steep given the base price is £8,900, I think the high gloss look is a significant and justifiable improvement over the basic grey, black, white, or brown vinyl.

The big change between the Ultimate Mk II reviewed in issue 102 and the one reviewed in this issue is not simply the high gloss look. The crossover has gone in for a radical redesign, or rather several redesigns over time. This has addressed some of the compatibility issues that made the loudspeaker a bit sensitive in amp choice at its last visit. When last I tested the Ultimate Mk II, I suggested the loudspeaker required current to drive it. That still holds, but it's less demanding, allowing more valve amplification to come into the mix without a concomitant dip in the high treble as a result. This also has an advantage in sonic terms, even when ideally partnered. ▶

► It's slightly difficult in writing this review because we are inevitably going over old ground. I urge prospective German Physiks customers to check out both my previous review of the Ultimate Mk II and Dick Olsher's review of the same at *The Absolute Sound* for the full introduction to the unique properties of the omnidirectional speaker, but the Cliff Notes version of the same is the loudspeaker creates an extremely musical experience, more like you are in the concert hall than the control room of a studio. They work best in a large room because of their omnidirectional nature, but they are far less troubled by the demands of room treatment and don't require micron-tolerance positioning of speaker or listener to deliver the goods. This perhaps works at its best with orchestral music and at its worst with a close mic'd, right-between-the-speakers, girl-with-guitar style recording (where the omnidirectional nature of the speaker makes such recordings appear a little diffuse), but those who 'get' what this kind of speaker can do will either be self-editorial in their music buying or accommodate such limitations.

Comparing the listening notes between old and new, however, this last point now seems a lot better resolved. The sound of Kat Edmonson singing 'Lucky' [*Way Down Low*, Spinnerette] wasn't as rounded and diffused, and there was still that sense of a singer in the listening room; more like a real person's voice as it bounces round the room rather than a disembodied vocal 'thing' floating between the loudspeakers. Even replaying the a cappella version of 'Tom's Diner' by Suzanne Vega once more [*Solitude Standing*, A&M] showed this to be less diffuse and more focussed. You could always understand the vocals and the meaning behind them, but the German Physiks presentation perhaps lost a little in the hi-fi sense of a musical 'hologram' – the revisions help both the naturalistic reproduction and the audiophile-friendly sense of dimensionality.

Moving to the loudspeaker's true calling – orchestral music – this improved imagery came over as a more cogent orchestra in a larger environment. Once again rolling out the Saint Saens *Symphony No 3* [Munch/Boston SO, Living Stereo] the sense of the musical performance the previous Ultimate Mk II delivered was enhanced by an increased sense of spaciousness in the imaging, a deeper bass, and more detail especially in the upper registers. This was not necessarily a night-and-day change in performance, but those who auditioned a pair of German Physiks a few years ago and wished for a bit more heft at the bottom end and more definition at the top, just got their wishes granted.

The big question perhaps is should existing Unlimited Mk II listeners with the older crossover feel short-changed? No. The Unlimited Mk II is a good loudspeaker, whether it has the old or new crossover. Moreover, if you chose an Unlimited Mk II and picked out a good amplifier partner, a lot of what the change to the crossover actually does is academic; the revised crossover brings more amplifiers to the party, but if you already made that choice and made it well, the new crossover's benefits in greater compatibility are not really needed. The new crossover brings a little more clarity and quite a lot more bass, but the change is more a subtle development than a radical shift in performance. I have a feeling that those who like the German Physiks sound are fans for life, and if you already have a Limited II or an Unlimited Mk II, the better option would be to consider a full-on upgrade further up the German Physiks ladder, maybe to the HRS-130 or even to the Borderland Mk IV.

Back in issue 102, I concluded that everyone should take a listen to the Unlimited Mk II because if you like what it does, most conventional loudspeakers sound contrived. I still hold to that, but in the intervening period, the loudspeaker has become more physically attractive and more universally acceptable. More than ever, you owe it to yourself to try the German Physiks sound. It could be all you ever need. +

TECHNICAL SPECIFICATIONS

Operating Principle:

two-way loudspeaker with
360° surround radiation

Frequency Response: 32Hz–24kHz

Sensitivity: 88dB/W/m

Impedance: Four Ohms

Power Handling (Nominal/Maximum):

110W/170W

Amplification required:

Minimum 90W/4ohms

Crossover frequency: 200Hz

Crossover slopes:

DDD Section: 6dB/octave
(electronic),

18dB/octave (acoustic)

Woofer Section: 18dB/octave

(electronic & acoustic)

Input connectors: 1x binding posts

Drivers: 1x carbon-fibre DDD driver,

1x 200mm woofer

Finish: satin white, black, light grey
or dark brown vinyl as standard,
black, white, red, or yellow high
gloss polyester finish in Ultimate
form, as tested

Dimensions (WxHxD): 24x105x24cm

Weight: 28.9kg

Price: As tested £10,900 per pair

Manufactured by: German Physiks

URL: www.german-physiks.com

Email: info@german-physiks.com

Tel: +49 6109 5029823