Legend Acoustics Kurre 8

LOUDSPEAKERS

Legend Acoustics' Kurre loudspeaker is one of its longest-lived designs, having been originally released in 1995: back then it was only the second model to be released by this now award-winning Australian loudspeaker manufacturer. That it's taken twenty years to get to Version 8 is proof of the superiority of the original design. However this latest version marks a marked departure for the Kurre, because it now has a metal-coned bass/midrange driver and the cabinet is now sealed, rather than ported.

THE EQUIPMENT

The original Kurre had a head-start in the research and development stakes because much of its R&D was built on what Legend Acoustics' founder and owner, Dr Rod Crawford, had learned while he was designing speakers for famous Scottish manufacturer Linn. For example, while the exterior of the Kurre looks like any other small bookshelf/standmount loudspeaker, internally it's like no other, with a complex internal shape intended to minimise standing waves, along with extensive internal bracing and considerable damping. Then there's the asymmetric driver location which Crawford claims is the geometric ideal to ensure the best dispersion of sound waves...an ideal that's helped by the relatively narrow baffle, compared to the other cabinet dimensions: which are, for the record, 400×200×300mm (WHD).

The new bass/midrange driver not only has an aluminium alloy cone to ensure more piston-like operation over a much wider frequency band; it also has ribbing that has the effect of pushing the cone break-up frequency further beyond the Kurre's crossover point than on any previous implementation, and in this instance it crosses over to a 25mm soft-dome unit from Scanspeak.

If you look around the rear of the speaker, you'll find a high-quality speaker terminal block, with absolutely huge gold-plated, multi-way speaker terminals. You may also find evidence that the Kurre 8 used to be a bass reflex design, because on my review sample, the port was still there, but had been blocked off.

(**Editor's Note:** *When I asked him about this, Crawford told me he was using up his stock of ported cabinets (but blocking off the port) after which future models would not have the port. G.B.)*

The two-way crossover network in the Kurre Version 8 uses only air-cored inductors (Crawford makes this point because many designs that claim to use air-cored inductors have only one that's air-cored—so they can make the claim—while the others have ferrite and steel cores) along with high-quality polypropylene capacitors. Crawford also likes to highlight that he uses non-inductive resistors in the Kurre crossover because almost all other manufacturers use lower-quality inductive resistors. To be precise, he uses ceramic-cored metal-oxide non-inductive Lynx resistors made in Canada. The inductance of these is just 0.1µH compared with 0.8µH for cement wire-wound resistors. Legend also eschews the use of printed circuit boards, preferring point-to-point hand-soldered connections. As with all Legend Acoustics' designs, the Kurre 8s are built entirely in Australia, using real-wood veneer (Jarrah).

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IN USE AND LISTENING SESSIONS

I have never been a huge fan of positioning the tweeter in a two-way below the bass/midrange driver, but many famous speaker designers swear by it, and Crawford is obviously one of them. My main objection is that it means you need to use taller stands to put the tweeters at ear level... or a greater tilt angle to achieve the same effect. It works well for bookshelf mounting though! However, remember that you can always experiment: there is no rule that says the speakers 'must' be used with the tweeters at the bottom. If, after experimenting, you think the Kurre 8s sound better with the tweeters at the top, go for it!

Crawford is also a fan of off-setting the tweeter from the central point of the cabinet. He says it results in less diffraction from the cabinet edges. I'm also a fan, not just because of diffraction, but also because it enables further options when positioning the speakers—both tweeters to the inside or both tweeters to the outside. As a rule, if your listening position is fairly close to the speakers, the tweeters should be 'in', whereas if you're further away, tweeters 'out' will likely yield a better result. But in the end it will be room's acoustics that dictate what will sound best, so experiment with both alignments, and use the one that gives the best high-frequency sound and the best imaging.

When I first fired these speakers up, I was immediately surprised by how inefficient they were... which I knew instantly because I was having to turn my preamplifier's volume control far further clockwise than I usually do with my own speakers, which have an efficiency of 87dBSPL/w/m, to reach my preferred listening levels. (**Editor's Note:** *When asked about this, Crawford said he'd traded off efficiency to gain increased frequency response smoothness and greater low- and high-frequency extension and that this is why he recommends a minimum amplifier power of 50-watts per channel [and up to 200-watts] for use with this design. G.B.)*

I can certainly attest to the smoothness of the response and the frequency extension at both ends of the audio spectrum! It was immediately obvious to me that the Kurre 8s were delivering studio-monitor-like accuracy. And since I was listening to Immigrant Union's second studio album, 'Anyway', that studio was Mat Robbins' Coloursound Studios in Altona, Victoria, not too far from where I live. Thanks to the Kurre 8s I could 'hear' the sound of a master engineer at work, because every single instrument was able to be 'ear-picked' from the mix and the sound of every instrument was perfectly true. The drum sound in particular is incredibly well-captured—the Kurre 8s delivered everything from the kick drum to the high-hats perfectly—but the guitars came in a very close second. The balance was exact and the tonalities amazing... especially on vocals (at that time Courtney Barnett, Dave Mudie and Bones Sloane were still with the foundation members, Bob Harrow, Brent DeBoer [yes, he of the Dandy Warhols] and Peter Lubuiwa).

The same incredible levels of detailing, tonal accuracy and frequency balance were also in clear evidence on 'The River Flows', the latest (and twentieth!) album from Melbourne's Nick Charles. If you've only admired him as a solo artist, now you have the opportunity to hear his sophisticated blues (plus some equally-sophisticated country) when he's accompanied by Pete Fidler on dobro and electric lap steel, Paul Jones (violin) and Louis Gill on both electric bass and double bass. The intricacies of the music they weave are magical and, when you turn the volume up, the realism palpable.

How much power do you need to get the speakers playing at this volume? My power amp is rated at 110-watts per channel and I thought it drove the Kurre 8s perfectly but, obviously, more power would not go astray, and you could easily get away with a little less, depending on the size of your room and the levels you normally listen.

CONCLUSION

These are superb-sounding, incredibly accurate speakers with super-clean, truly depthy bass, complemented by a beautifully extended treble. And (despite a slightly 'Scottish' heritage) they're made right here in Australia! Little beauties, I reckon. ***Ed Miles***

LEGEND ACOUSTICS KURRE 8 LOUDSPEAKERS

Brand: Legend Acoustics
Model: Kurre 8
Category: Standmount Loudspeakers
RRP: $2,290
Warranty: Seven Years
Distributor: Legend Acoustics
Address: Lyrebird Drive
Nowra NSW 2541
(04) 0760 0009
rod@legendspeakers.com.au
www.legendspeakers.com.au

- Midrange clarity
- Superb treble
- Excellent finish

- Low efficiency

LAB REPORT

Readers interested in a full technical appraisal of the performance of the Legend Acoustics Kurre 8 Loudspeakers should continue on and read the LABORATORY REPORT published on page 94. Readers should note that the results mentioned in the report, tabulated in performance charts and/or displayed using graphs and/or photographs should be construed as applying only to the specific sample tested.

Lab Report on page 94

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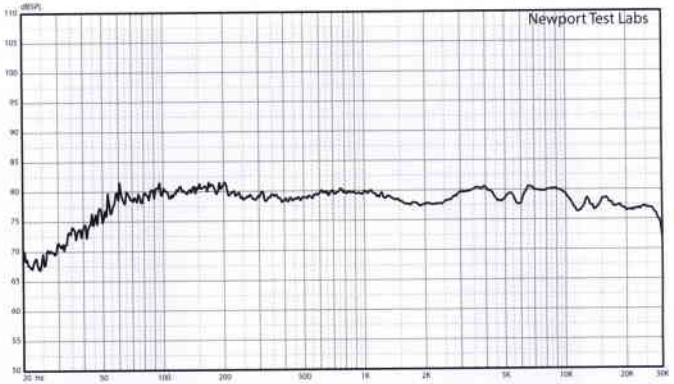
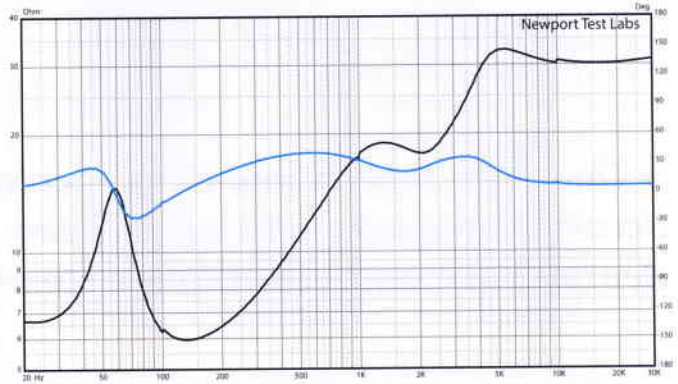
LABORATORY TEST RESULTS

Graph 1 shows the measured in-room response of the Legend Acoustics Kurre 8, measured at three metres using pink noise (the trace up to 2.7kHz) after which the high-frequency response was measured at one metre out to 40kHz via gated sinus. You can see it's exceptionally flat so that overall, *Newport Test Labs* measured it as 44Hz to 38kHz ±3dB, which is excellent, as well as being quite a bit better than Legend Audio's specification. The impedance of the Kurre 8 (Graph 2) shows the typical single resonant peak of a sealed enclosure, which for this design is centred at 48Hz. The lowest the impedance falls is to 6Ω at around 130Hz, which it does only briefly, so the impedance could be regarded as being 'nominally' 8Ω (minimum 6Ω) rather than Legend Audio's 8Ω specification. The high impedance above 2kHz is apparently due to the presence of a 22Ω pad on the tweeter to reduce its efficiency. Potentially this could interact with the output stage of some older or poorly designed Class-D amplifiers, affecting their high-frequency response, but should not present any issues with standard Class A/B amps or well-designed Class-D amps. The phase angle is very kindly, swinging only ±30 degrees. *Newport Test Labs* measured the sensitivity of the Kurre 8 using its standard, very stringent technique, at just 80dBSPL at one metre, for a 2.83Veq input. This means the Kurre 8 is a very inefficient design and will require higher-than-usual levels of amplifier power to deliver average volume levels in your listening room.

Overall, the Legend Kurre 8 is a very well-designed loudspeaker that delivers a very flat response over an extended bandwidth...the only caveat being that its very low efficiency will require careful attention to the choice of the driving amplifier. ***Steve Holding***



Graph 1a. Frequency response. Trace below 1kHz is the averaged result of nine individual frequency sweeps measured at three metres, with the central grid point on-axis with the tweeter using pink noise test stimulus with capture unsmoothed. This has been manually spliced (at 2.7kHz) to the gated high-frequency response, an expanded view of which is shown in Graph 2. [Legend Acoustics Kurre 8 Loudspeaker]



Graph 2. Impedance modulus (black trace) plus phase (blue trace). [Kurre 8 Loudspeaker]