

EAW KF740

An exclusive preview of EAW's newest line array.

Text: **Christopher Holder**

▶ Here's a turn-up for the books: an EAW line array, hand assembled in Australia.

That's right. The latest mid-sized, blue-ribbon PA from New England innovators, EAW, 'made' in Mitcham!

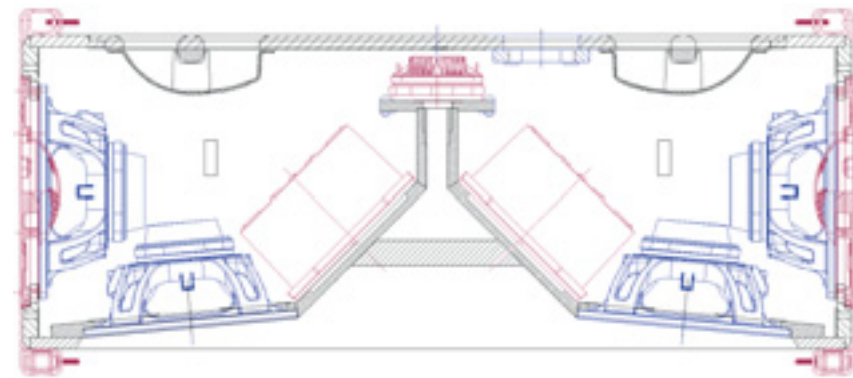
Actually, perhaps I should clarify that statement... let's go back a few steps.

Back in September AT found itself at the Sydney Myer Music Bowl hearing the KF740 in action. Australian representatives, Production Audio Services, had coaxed EAW R&D, along with Vice President Jeffrey Cox, to allow their latest progeny to stretch its legs for the first time in the Antipodes. There may have been promises of 'shrimps on barbies' and trips to the MCG to observe a game no American has ever fathomed ("they don't wear any padding?!")... not sure, regardless, EAW decided to ship KF740 components to Melbourne for Production Audio Services to assemble. So, there we were, a select few hearing the 'Aussie' KF740 in anger for the first time.

I'm not entirely sure if my hearing was being coloured by the aforementioned colourful 'back story' to these boxes, or if I was a little too taken with being part of the first dozen people to hear this speaker arrayed, but they sounded enormously impressive to me. Close your eyes and you'd swear you were listening to a much bigger box – there would be plenty of applications where the KF740 could easily get by without subs. There's effortless amounts of volume and a lot to like about the tone. So what exactly are we dealing with here?:

PART OF THE FAMILY

For those familiar with the KF730, it's useful to make a few comparisons as quite a bit of the technology and voicing is the same. The older KF730 packs 2 x 10-inch drivers, 2 x 6-inch and 2 x smaller-format compression drivers. The KF740 chassis on the other hand may be a little wider and weigh 13kg apiece heavier *but* it crams 4 x 10-inch LF drivers, 2 x 8-inch midrange units and 2 x larger-format compression drivers (with three-inch voice coils). So thanks to some clever design and the latest neodymium motors the KF740 provides an amazing amount of bang, clout and wallop into a mid-sized box.



Like all of EAW's KF Series loudspeakers, the KF740 is a three-way. Each box contains two HF compression drivers with three-inch voice coils and 2 x eight-inch MF transducers, all neatly jammed into a single horn that occupies the entire face of the enclosure. This allows for consistent 90-degree pattern control down to a quoted 160Hz. There are four 10-inch LF transducers with 2.5-inch voice coils. Two of the LF transducers are mounted within the horn, and two are side-mounted, providing as much as 18dB of off-axis rejection.

NEED TO KNOW

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Again, like the 730, The KF740 features a horn that covers almost the entire front of the cabinet – an arrangement that provides the array with its tight horizontal pattern control. The horn is shared by the HF and midrange drivers. Unlike the 730, the brand new 740 uses the more recent horn design seen on EAW's recently released NTL720, which features those distinctive diamond shaped apertures. The holes mean the horn appears as acoustically transparent to the eight-inch mids (sitting behind the horn), but provide an apparently solid surface for the highs.

Two of the four 10-inch drivers are loaded in the side and the other two in the front. Jeff Rocha (EAW's Senior Director of Engineering) reckons this configuration gives them a 'linear source, horizontally', in other words, particularly good horizontal pattern control in the low-mids (down to 160Hz). And to reiterate, for those familiar with the KF730, the new 740 – with twice the 10-inch driver complement – has considerably greater low-end oomph.

I asked EAW's Jeff Rocha and Nathan Butler (Lead Design Engineer) about the choice and attraction of the 10s. They felt the 10-inch driver allowed them to keep the cabinet down to a size that should please most people most of the time. Step up to a 12-inch device and the cab becomes too tall for just two compression drivers without larger apertures. They also felt a 12-inch driver would necessitate a four-inch voice coil to make the jump worthwhile, which obviously means considerably more weight and bulk within the box. "It really allowed us to fit a lot of components in a small area and get a greater overall output than from a pair of 12s," noted Jeff.

RIGGED

The KF740 rigging is identical to the 730. Which is obviously a good thing for anyone with existing 730 inventory – one less thing to worry about – and 730s (with their wider horizontal pattern) can easily be used as underhang boxes in a 740 array.

Speaking of rigging, a new sub is also available – the SB1002. I'm not sure EAW is calling it a 'companion' sub, but it certainly looks good in the air with a KF740 array. Think of it as an SB1000 (EAW's stalwart double-18 sub) that you can fly.

IN DEMAND

The demand for large-scale line arrays based on 15- or even 18-inch LF drivers is, shall we say, finite... especially in this part of the world. But there will always be demand for mid-sized systems like the KF740. It's suitable for any number of applications: anything from all but the biggest open-air festivals to club/theatre installations. You really do get a whole lot of PA for the size, and for this reason the KF740 auditions very well – it's immediately impressive and, and as I said, there's an astonishing amount of bottom end.

If you have any EAW loyalties and you already have KF inventory, then the 740 is a perfect fit. The 740 would be a great complement to a KF760 system – either as a delay or as downfill; or could quickly beef up a KF730 PA.

What's happened to the 'Made in Australia' 740 rig? I expect it'll be doing the rounds. Make sure you take the chance to hear it in action.



A string of KF740 (left) alongside an array of the new SB1002 subwoofers at the hush-hush Myer Music Bowl hitout.

INTERVIEW WITH EAW'S VICE PRESIDENT JEFFREY COX

Jeffrey Cox manages Loud Technologies' PA brands, Martin Audio and EAW. He's a savvy operator, a great communicator and has considerable hands-on experience in the field.

AT: Is the KF740 the product your clients have been screaming for?

Jeffrey Cox: Our clients have been asking for a mid-sized box for a while but there were a lot of other products I wanted to get out first, starting with the UX8800. As soon as I came on board I wanted to make sure we had a proper processor to ensure people were using the same presets.

So it [the mid-sized array] was put on the back burner for a while. And now it's very clear that there's a big need for a mid-sized array. The larger line array enclosures – whether it's the KF760, the large Meyer box, or a large L-Acoustics box – are not necessarily great for many of the venues we're working in. People are doing a lot of shows in 5000 – 8000-seat soft-seaters, right? So it became apparent that we really needed to move on this.

AT: The new sub... is it a reincarnation of the SB1000?

JC: Yes it's the SB1002. The largest differentiator is the fact it flies – there's rigging. But in point of fact, it has new transducers as well. So actually by my measure and quite a few other engineers' measure it's a big step forward, but obviously it'll be directly compared to the SB1000.

AT: Is flying subs always the best solution?

JC: Flying subwoofers is the smartest solution because you have a single point source for all frequencies. You can time align ground-stacked subs to an array but they'll never be fully in phase. Using a ground-stack provides you with other control and behaviour in the room, and it's not uncommon to fly your subs as well as have a small centre stack of subwoofers because you can be working in different rooms where you need different patterns.

AT: Is there an eye on the installation market with this product?

JC: It's a very clean look and, with its compact size, I think the installation market will take to it very quickly.

AT: You talk about the KF740 addressing the needs of more venues and engineers more of the time. How does EAW consider the top-end touring market? There's obvious prestige factor there, but practically/financially how important a market is it?

JC: Touring is massively important to all major professional manufacturers; it's as simple as that. It is crucial because it allows us to present product to so many people. But it's not our sole focus.

AT: Is it harder to maintain brand loyalty these days? Are rental companies more likely to be distracted by the latest shiny object?

JC: I think one of the key fundamentals of loyalty is a brand's ability to support someone who has spent huge amounts of money. I mean, these companies are investing their whole livelihoods in you. The communication and the support you provide directly to those people: the ease of contact, the ease of communication, the thoroughness of communication; those are the things I believe breed loyalty. Products and innovation, sure, they breed loyalty as well, but there are a lot of very good loudspeakers in the marketplace today. So I believe it's the communication, support and presence that are the crucial, crucial factors.

AT: Because loyalty cuts both ways doesn't it?

JC: Yeah it sure does. It really does. Why do we go to the grocery store we go to? Why do we take our car to be fixed at the auto shop we take it to? Because we feel as though they're communicating to us and they have our best interests at heart. ■