

KV2 Audio ES Active PA

The brains behind popular Mackie and RCF designs have launched a new range of active PA systems. Luke Kungl investigates.

Like many people reading this review, I am a humble sound guy running gig after gig for a Sydney production company. Every gig is different, every room is different, every PA is different. I have to admit, I have limited time to trial new technology and play with new systems unless I'm a guest engineer or our company buys new toys. It was therefore with some reserved optimism that I recently had the opportunity to take KV2's latest offering along for a day trip. I should also admit, somewhat ashamedly, that I had not heard of KV2 until I was asked take care of this review. The advantage of hearing the ES system 'cold' was I had no preconceived opinions as to the performance of the system.

The History

George Krampera and Marcelo Vercelli, the 'K' and the 'V' in KV2 Audio, are known for their work with Mackie and RCF, developing some of the world's most popular cabinet and transducer designs. Other key personnel 'jumped ship' with them, and as a consequence KV2 has built a team of specialists in not only powered cabinet design, but amplifier and electronics, transducer design and cabinet construction. This heritage is clearly evident – KV2 was only recently founded in 2002, and in that short time has produced a very mature product. This is certainly not the cheapest PA on the planet, but like most things in life, one gets what one pays for.

Worth the Weight

KV2 currently offers two system alternatives: the ES, and a more entry level compact EX (I am yet to hear the EX). Both ranges have been engineered from scratch and make a genuine attempt to 'markedly improve dynamic range and long-term live touring performance, regardless of the output.' For the full marketing spiel, go to the KV2 website – I'm not a salesman.

I had the chance to set up the rig at the factory the day before the gig. Just to briefly fill you in on what makes the ES system obviously different: this is an actively driven system, but with an external amp module rather than having amps built into the back of the box. The concept here is to keep the advantages of having custom-designed amps perfectly matched to their transducers (with all the usual processing and driver protection we've come to expect from self-powered cabs), but in a reasonably compact standalone unit – resulting in less heat, less weight in the boxes.

Saying all that, the boxes are far from being featherweight. KV2 claims a one-person setup but I figure you would need a fair injection of gig-mode adrenalin to achieve this, or be seven-feet tall. Although, considering the solid construction and the internal componentry, the weight isn't too ponderous. The finish and construction, handle positioning and cosmetics are all excellent.

The System

There are five components to the ES, so let's look at them one by one.

First up is the 1.0 three-way high/mid module. There is one feature of this design that I have been waiting a long time for. The crossover point is not smack bang in the middle of the human speech range! (The crossover



frequencies for the three drivers are: 130Hz, 500Hz and 2.5kHz.) Both the 1.7-inch high frequency driver and the six-inch mid device (with its own integrated heat sinks) are horn-loaded, and this combined assembly is rotatable. The fact that the half-folded horn-loaded 12-inch low/mid was in the same enclosure as the mid and highs worried me at first, but actually couples quite well. We did all the usual tests – cranked up all our favourite CD tracks, fed it a Shure Beta 58 and so forth. Gain before feedback was very impressive... so casting a sceptical eye toward the KV2 rep I whacked a lectern (with two SM99s) right next to it. Again, very impressed! Low frequencies aside, the 90° x 40° dispersion is true

to its word, and very even. The frequency response is also very smooth, and, even when running it close to the red, intelligibility remained as intact as it did when idling – an attribute not all that common in cabinets of this size. What was also very evident was that a lot of power comes out of these boxes.

Three Subwoofers

There are then three sub variants. The ES 1.5 – a single 15-inch coupled in a twin chamber; the ES 1.8 – front-loaded single 18-inch with reflex port; and the ES 2.5 – a dual 15-inch twin chamber. The rig is designed to run with any of six combinations of these subs, each with one 1.0 cab on top and all from one amp module. A selector switch on the amp module informs the electronic processing and amp module what it's looking at. We explored two setups. First, a 1.0 on a polemount into a single 2.5, and next to it a 1.0 on a 1.5, which itself was on a 1.8 (the setup I actually used for the gig). One thing I did notice about the 1.0 is that it seemed happier with some space between it and the subs. The second stack had a hint of harmonic distortion at 315Hz, but certainly nothing disconcerting.

The low end is clean, fast and refreshingly detailed. My factory hardly has ideal acoustical characteristics, but then again, what live gig has either? As with the top box, dynamic range and headroom was impressive.

The Amp Module

Now there's the amp module, the ES2500, which packs 2,500W of power – which accounts for the 35kg weight. Setting the amp up is a breeze. Although, I would like to see a standard 15A/240V socket on the unit – I can see it now: "hey where the hell is the KV2 power lead with the Euro plug-end gone!?" This is hardly damning criticism, though, and KV2 is certainly not the only manufacturer to take this export short cut.

As far as connecting the speakers goes: you need one EP6 for the top box, and all the subs connect via one EP4 (per side of course). Conveniently, all the speaker cables fit into the lid (unless you plan to fly the top box, in which case dig up one of your longer EP6 cables).

Most of the surface area of the amp unit is taken up by heat sink fins, with additional fan backup. Incidentally, during the entire period of the review the fan didn't need to kick in once. Operationally, the amp is foolproof, with some useful extras, like a selector switch indicating if additional amp modules (additional 1.0 cabinets) are to be deployed. This activates extra EQ and processing filters accordingly. Also, there's an XLR insert point on the low end, to either insert your own delay unit, or run to additional active subs. There is also a bass 'Extension/Attack' selector. 'Extension' apparently uses circuitry to take peak transients and spread them longer. Interesting concept, I'm sure the drivers like it, but I'm still trying to think of an instance in a live gig where I would want to slow the response of my subs down. The Extension function is noticeable, and yes, I much prefer the

standard attack setting. After all, there is ample power for transients, which I later discovered at the gig.

In Use

The gig I rolled up to was staged at a small, awkward venue I had never encountered – The Coast restaurant in Darling Harbour, Sydney. The room was about 40m long and 10m wide. It sounded poor, with lots of glass; high, painted and angled ceilings etc. I hadn't mixed this particular band either. So this was going to be quite a stern test for the KV2 rig.

The system was up in a flash, and before you ask, yes, of course the PA had to be shifted around a couple of times – potted palms are always more important at these type of gigs! But these cabs are easy to shunt around and, as I discovered, forgiving on placement.

The only EQ'ing I found myself doing was for the room, while the delay line I'd spec'ed soon went back into the van after sound check. In fact, FOH ended up running open with no compression, after I discovered I was nowhere near changing the little green LED to a different colour... even during the encore when the highly-refreshed birthday guests started 'sharing' the microphone. In use, the vocals (the real ones) were clear, crisp and warm, with a full band mix behind to boot. I was surprised by the level of detail I heard, given the SPL and small number of drivers. The all-important mid range is a strong point of this system – good coverage was evident, again, considering the space. This was a private function for 200 guests, and I would have absolutely no hesitation using the rig I had for over a thousand guests in a room five-times the size.

No Sacrifice

KV2's ES system is not the cheapest rig in the world – this configuration coming in a little over \$20k retail – but is certainly value for money. As you can no doubt tell from my experiences here, I was impressed with what I heard. With the workout I gave the system, it hardly broke a sweat. It's a powerful system given its size and very sweet-sounding. The way the rig comes together is very elegant. The amp's speaker configuration selector is very nifty and all helps to make setting up this system quick and easy. In short, it's a very professional, well-conceived package that doesn't sacrifice sound quality or versatility for ease of use. The KV2 ES system looks like a good investment to me and really demands to be auditioned.



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