

There's a good chance you've already heard an HK Audio system, either installed in a club or touring with a band. If you have, I'm sure you were impressed by the sound quality.

But there's almost no chance that you've heard the HK D.E.A.CON rig because it is totally new and at the time of writing there were only a handful in the UK. In fact, the only D.E.A.CON system that had not already been snapped up was in the demo facility of the UK importer JHS in Garforth, near Leeds. With the prospect of being the first to review this system – certainly in this country, I didn't need asking twice. So a few days later, I found myself surrounded by HK gear in the company of JHS' pro audio sales manager Neville Raine.

Neville turned out to be useful company. In addition to helping me to try out the D.E.A.CON rig in different ways, he was able to put the new system into some perspective when it comes to the other systems HK offers – and there are quite a lot of them.

If you want the big picture, HK systems break down into three markets: installed systems for clubs, portable systems you can get into the back of an estate car or van, and concert sound.

The concert sound systems are those massive rigs you find at open air festivals, often with the speakers flown in clusters above the stage. Because of their size and cost, these sort of systems are normally only bought by major hire companies, who make their money by taking them on tours all over Europe. But the way I look at it, if HK is capable of selling systems of that size to some of the most knowledgeable customers in the world, some of that design skill has to rub off on the more compact systems.

The new D.E.A.CON sits towards the upper end of the portable range of active sound systems. 'Active' in this context doesn't just mean that the amplifiers are built in – as we'll find out, there are all sorts of clever electronics in the system. It's worth bearing in mind that – even if the D.E.A.CON system is more than you are looking for right now – HK makes many other systems, so the chances are that at least one of them is just right for your act. Taking a good look at the D.E.A.CON is a very good way of demonstrating exactly how.

Setting-up

The full D.E.A.CON system is a six-cabinet, 3,200W, three-way system with highly sophisticated onboard electronics. Oddly enough, it's really simple to assemble.

That said, you do have to get the cabinets into the required stacks before you start hooking it up. Playmusic lensman Richard Ecclestone had been in earlier and pulled the units into all sorts of artistic configurations. I must admit, I was grateful that Neville was around to help me get everything rig-shaped again. Sure, those subs have got meaty-great castors on the back of them but you still have to get the second sub on top of the first and the mid-high on top of that. I'm out of shape! I reckon I could set up a D.E.A.CON system on my own but that's just the get-in. If I had to do the get-out on my todd after two hours of giving it my all, I think words might be exchanged between me and anyone within 20 metres who didn't have a cab in their hands.



What's nice about this arrangement – apart from the fact that it's blindingly fast to set up – is it's very flexible. You can take the mid-high units out for small bar gigs, take out the powered subs to play a pub and then unleash the full six-cab setup for a club.

Power Works (for less)

If the HK Audio full-blown active systems aren't within your budget at all then there's no need to feel left out. The company also offers the PowerWorks range.

Loaded with US-built Eminence speakers built to HK's specifications, PowerWorks passive cabs start with a 12" speaker and horn for £179 incl VAT and go up to a powered 15" cab with horn for £419. There are six models in the range all together, so you should be able to find something that suits. Check them out properly at www.jhs.co.uk



(Left): The PowerWorks RS122 M 1 x 12" 300w horn monitor with integrated power amp and two separate adjustable inputs.



(Right): The PowerWorks RS115 1 x 15" 600w sub.

ROADTEST!

The HK demo room at JHS is basically a big shed away from the main building (and I think we all know why that is...). Acoustically, it's reasonably representative of the average venue, being neither excessively reverberant or especially dead.

At a push you could get around 200 sweaty bodies inside it, although the place would be rammed. Just like the average Camden venue then.

For the sound source, we used a high-quality CD player and a pretty diverse selection of tracks, including some very percussive material and some with acoustic instruments that would immediately give the game away if the system was subject to excessive colouration or distortion.

Inbetween the CD player and the active electronics of the D.E.A.CON sat an Allen & Heath GL2000. All the desk was doing was routing the output to the appropriate rig and providing a pair of level faders – there was no EQ in line or any processing applied.

First off, we listened to the mid-high cabinets, without the subs. The frequency

response was good and the sound certainly wasn't boxy. The stereo field was coherent, with instruments that were in the centre of the mix appearing to sit in that centre space, rather than collapsing into two sources of equal volume left and right.

Detail in the vocal range was very good. It was certainly possible to identify processing that had been applied during the recording, such as compression to bring out that 'breathy' quality.

I went behind the speakers to see how they would sound if you weren't in the 'sweet spot' at a gig. The result was surprisingly good – certainly better than I would expect to hear 'off-axis'. Even on their own, the mid-high cabinets were quite punchy, meaning that the initial 'transient' that made up the characteristic of each instrument was being accurately reproduced.

When we added the subs, the system took on a new dimension, with 5-string bass exhibiting that characteristic low-end growl and really finding its own space in the mix.



I tried to push the volume on this system until I could hear the processing compromise the sound in its bid to protect the speakers. I gave up at the point where the volume was so high, any distortion would undoubtedly be my ears buckling under the sheer Sound Pressure Level.

Indeed, I couldn't fault the performance of the system, either up high, or down low, where the intelligent electronics make sure you still get that 'big rig' sound. **PM**

At what point does a sound reinforcement system start to sound like 'a big rig'? Simon Croft may have discovered the answer with the new HK D.E.A.CON system

However, solidity is a good thing in the sound reinforcement business, both in terms of durability and the fact that the cabinets are not going to resonate and add distortions of their own.

Round the back is where the connection panels live. The mid-high unit is the brains of the operation when it comes to processing, so that's where you plug in the XLR cable from the mixer. If you want to use these cabinets only, you need to switch them to 'full-range'. Otherwise, they should be set to 'satellite', which means their frequency response is tailored to take into account the fact that the subs will be handling the bass end. Sub A is powered, so you take another XLR cable from the mid-high to the input of Sub A, then a Speakon cable from there to the passive Sub B. That's about it.

What's nice about this arrangement – apart from the fact that it's blindingly fast to set up – is that it's also very flexible. You can take only the mid-high units out for that duo you put together for small bar gigs, take out the powered subs as well to that pub you play on a Thursday and then unleash the full six-cab setup for the clubs you play over the weekend. ▶

Why should I want one?

With a rig like this, your band could perform to audiences of 500-800 people, delivering a powerful, professional sound.

With a sound system of your own, you could host your gigs in any venue and could certainly command more money, providing you could pull in the punters. If your band already can, with a rig like this you could promote your own events and keep all the gate money, after you've covered your expenses. That's a very different deal to playing in a club, when you can end up 'paying to play'.

As you're following grows, you'll be relieved to know that it's easy to build on this system, catering for audiences of 1,500 or more.

HK Audio D.E.A.CON
SRP: £6899
John Hornby Skewes & Co
Tel: 0113 286 5381
www.jhs.co.uk

THE BIG GUNS



MY BRAIN HURTS! IT MUST BE...

THE TECHNICAL BIT!

HK has employed Class D amplification within D.E.A.CON, a choice other sound reinforcement system makers have also made because these designs are much more efficient than older designs that simply convert a lot of the energy into heat. HK says that its amplifiers are more than 90% efficient, which means they can be smaller and lighter.

Class D amplifiers are fundamentally digital. A lot of the clever signal enhancements made today are down to computer chips that perform DSP – Digital Signal Processing. This enables fairly compact circuits to perform several useful tasks at once.

When the signal reaches the D.E.A.CON mid-high cabinet it is filtered into separate frequencies, so that the high energy goes only to the high frequency driver and so on. In addition, HK uses 'multi-band limiting'. This means that if any one of several frequency bands could drive the speakers too hard, it will automatically be turned down, or 'limited'. The effect of this is momentary and should not be noticeable to the listener.

The back of the D.E.A.CON cabinets are fitted with limiter LEDs, so it is easy to see if they are being triggered constantly and adjust the volume accordingly.

HK has also developed what it calls DDO controller technology, which stands for Digital Dynamics Optimisation. That means the frequency and dynamic response of the system are adjusted so that it delivers a detailed and punchy sound at all volume levels. **PM**

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Low end and bottom line

I've have to be on another planet not to mention the price of this system in the context of what it can do for you. That's right, it's the best part of seven grand by the time the VAT man has taken the Government's cut out of this deal.

But if you want big rig performance, HK's D.E.A.CON system not only delivers it in spades but in a package you can tailor to almost every venue until you need a larger system. At that point, you can double it up and go for a 6.4kW rig without having to trade in your original investment.

Until that point, D.E.A.CON is a superb-sounding system that puts you on a level footing with anyone playing similar-sized venues – no matter how famous or well-signed they might be.

You can put any sort of music through a D.E.A.CON rig and any type of musical instrument, from cymbals at the high end to double bass and 5-string bass at the other. It will do justice to them and indeed the whole band and one seamless production.

Another way of looking at whether you are getting value for money is to list what you are actually getting for the outlay. It's not just six well-designed and well-built cabs. All your front-of-house amplification is included, as are the electronic crossovers and the D.E.A.CON electronics itself, which are designed to give you the best possible performance at any venue size.

Of course, you can buy digital processors that do something similar to D.E.A.CON but they would not be

integrated into the system in the same way so they automatically 'know' how hard you were pushing the levels and compensate accordingly. (See **The Technical Bit.**)

Another issue is how well your gear is going to last. HK's portable sound products are engineered and built in Germany. At the risk of descending into national stereotypes, I've always found that German equipment is, if anything, over-engineered. Certainly if you're supplying sound equipment to German radio stations, you soon learn that the technical standards are almost ridiculously high. I have a definite feeling that this D.E.A.CON is going to be working perfectly well in 10 years' time.

So time to start saving? If it sounds a little too rich for your blood then do note that HK portable systems start at about £1,000 and go in logical jumps up to about £10,000, meaning you will find something in your price bracket with an equivalent quality to the system we were lucky enough to play with (**see Power Works (for less)**). But if this is your kind of budget and you need a 3k rig (and let's face it, who doesn't want that much power at their disposal really?) then HK's D.E.A.CON is in a select group of serious contenders. You owe it to yourself to check it out. **PM**

