

Electro-Voice EKX Series

Active PA Speakers

EV have a well-earned reputation for building solid, reliable PA speakers, and their latest series doesn't disappoint.

MIKE CROFTS

The EKX speaker series is a recent addition to the world-famous and widely used Electro-Voice family of portable self-powered loudspeakers. It is aimed at a very wide potential market sector — live sound, installation, DJs and so on — and therefore has to be pretty versatile, and present enough 'rig for the gig' in a range of different applications. The EKX speakers, at a price point below the acclaimed ETX series, incorporate lightweight components and clever onboard DSP to produce an overall package that fits with modern expectations of this sort of kit, including a preset mode to configure cardioid subs. We'll start with a brief description, and as always there's more information available from the EV web site or at your dealer.

The EKX range has four models. The two full-range units, the EKX-12P and EKX-15P, are two-way speakers with either 12- or 15-inch LF drivers and an internal Class-D amp section rated at 1500 Watts. These are capable of generating maximum SPLs of 132dB and 134dB respectively. Both units use the DH-1M one-inch-exit compression driver, crossed over at 1.7kHz, and both produce the same 90 x 60-degree (horizontal by vertical) nominal coverage. In the subwoofer department there's a choice of 15-inch or 18-inch designs with 1300W amps and 133/134dB maximum measured SPL. The EKX18SP has an extended low-frequency

range (35Hz at -10dB in half space, compared to 40Hz for the EKX-15SP).

Box Clever

All four units are made from 15mm plywood and have good, strong full-face steel mesh grilles; the EKX-12P weighs

a mere 18.8kg, or 41.4lb in old money, and the heaviest cab is, unsurprisingly, the EKX-18SP at just over 41kg, which translates to just under 91lb. The handles are well proportioned and well-placed for lifting and carrying and the subs have angled rubber feet which can mate with recesses on the top surface to prevent slippage when stacking — handy for transport as well as performance!

The full-range speakers can be standmounted if used on their own, or placed on poles above the subs, which have threaded mounts — a more secure option than standard 35mm 'drop-in' sockets. They also have M10 anchor points for suspending in an installation or show rig. The excellent and informative user manual contains detailed and important safety information about suspending these speakers, and it's a 'must read' if you need to go down this route.

The enclosures appear to be up to the usual EV standard of construction



and finish, and I like the look of them — I borrowed a pair of EKX-15P and EKX-18SP models, and although these are the larger options they manage to look compact and unobtrusive, which is always a good thing for work such as mobile theatre productions or corporate events. The EKX-12P and EKX-15P are designed to be used as main speakers or as floor monitors, and the cabinets have an angled surface to facilitate the latter, resulting in a 40-degree upward tilt. I tried out the EKX-15P in monitor mode and it's a powerful beast for this job!

As far as portable self-powered speakers go, they are generally designed to be simple and quick to rig and operate, and the user doesn't have to spend time thinking about detailed settings — you just plug in and play. The EKX range has taken a neat technology step with the provision of new, flexible DSP options, but still maintaining the simplicity of operation we've come to expect from this type of product.

Digital Delights

The digital signal processing (DSP) within the EKX speakers is pretty comprehensive, and the control panel is designed so that a single 'press-and-turn' control can, in conjunction with the adjacent LCD screen, access every function. For peace of mind, though, I would have preferred the knobs to have been recessed a little more, to make damaging them less likely.

The 'traditional' controls are simply an input level for each of the two channels, and a master volume control which is also the rotary encoder — it defaults to 'level' mode unless another function has been called up. Each input channel has a dual XLR/TRS input connector, which

can accept microphone or line-level signals, and channel one also has a pair of unbalanced RCA phono connectors so that media players and the like can be hooked up and mixed in without the need for an external mixer. This little feature is so useful for very simple setups and I regularly bemoan its absence on some of my own powered speakers. The full-range EKX-12P and EKX-15P provide a balanced XLR output for daisy-chaining another speaker or feeding onto another system — the output is derived from the input mix only, and so is affected by the individual channel level controls,

“There's certainly no lack of power and punch from the EKX speakers, and I was impressed by the full-bodied sound...”

but not by the master volume or DSP settings. I like the input-level control arrangement, as it presents a 'unity' gain option at the mid (12 o'clock) position and is designed to trim line sources or boost microphone sources to left or right of centre, respectively. We're all used to setting up with input controls at the halfway point, and with the EKX speakers there's no risk of switching on the system with a line-level signal feeding a mic-level input, which, if you've ever done it, isn't something you'd recommend...

Now let's have a look at the particularly clever bits, namely the DSP control and display section. Regardless of the impressive processing going on within the unit, the user interface is simple and easy to use without having to keep diving back into the manual. The little screen is clear, bright and sharp and is easy to read when making adjustments. The default mode shows the word 'level' and the screen displays twin horizontal VU meters representing the signal levels of each input channel. The master level setting is displayed in dB and a padlock icon is present when the user lock-out function is activated.

Safety First

Under normal operating conditions this will be what anyone standing behind the speaker will see, but should the operator become over-enthusiastic or careless with their system levels the display will indicate 'clip' or 'limit' conditions. Clip warns that the incoming signal is too high and

is about to reach its clip point, whereas Limit is shown as either a small warning graphic — triggered by short-term peaks to mitigate potential distortion — or a larger, bolder warning that means the system is being seriously overdriven and the sound will become distorted. I did manage to trigger these warnings, but only when wearing ear defenders because of the ridiculously loud volume; anyone regularly driving these speakers into limiting will most likely be mixing from a different room!

The DSP section has a number of functions used to control and optimise

performance under various circumstances. All the functions are available by pressing the master volume knob once, then turning it to scroll through the list of options on screen; another press selects the function and then the parameter to be adjusted, and so on. I'm not a huge fan of menu-driven systems, but this one is easy to use and, because you're only dealing with one function or parameter at a time, there's not much chance of getting anything wrong — it's quick and simple and I can't see it presenting a problem even for very inexperienced users. Some of the functions control the audio performance of the speaker, and some are utilities such as display brightness, contrast and the aforementioned user lock.

The main performance-affecting functions are a three-band EQ giving access to treble, mid and bass cut/boost controls, overall dynamic EQ modes, and a 'location' menu which optimises performance depending on the speaker's position (ie. on a tripod, on the floor as a monitor, wall-mounted or flown). There's also an adjustable high-pass filter so that the response can be fine-tuned when used with a subwoofer, including specific time-aligned settings for the EKX-15SP and EKX-18SP subs if you want to keep it all in the family. The front-mounted LED can be controlled via this DSP section too, and EV have gone one step beyond the simple on/off light, with a mode that turns off the LED unless the limiter is activated, in which case the LED indicates this —

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PROS

- Excellent power-to-weight performance.
- Extensive DSP options including cardioid subs mode.
- Flexible for use in many different configurations.

CONS

- The rear-panel controls are not deeply recessed and may be vulnerable to damage when handling the units.

SUMMARY

Powerful yet easily transportable speakers that both look and sound the business.

The DSP functions are accessed via a menu screen and a push-and-turn rotary encoder.

» useful for anyone in the traditional mix position in front of the stage...

One Direction

The EKK-15SP and EKK-18SP subwoofers have a slightly simplified control panel, with two input channels and direct link outputs, and all user control is via the DSP section. The subwoofers' DSP menu includes three performance modes, various low-pass filter options (again, including fully optimised settings for use with EKK and ZLX full-range models) and a location mode. The location option for the subwoofers is either 'normal' or 'cardioid', and the latter would be used only on rear-firing boxes deployed as part of an array, using multiple subs where the summation between boxes achieves LF pattern control to reduce bass output behind the stack and produce a cleaner, more controllable audio environment on stage. Even a single pair of subs can be used in cardioid mode, but they would have to be stacked together, not on either side of the stage, to achieve the desired effect.

I rigged up the full system — an EKK-15P and an EKK-18SP each side — in the rehearsal room and experimented with the various performance modes using a wide range of recorded tracks. The differences between the performance modes were noticeable but quite subtle at lower and moderate levels, and sounded more pronounced to me when driving the speakers harder. There's certainly no lack of power and punch from the EKK speakers, and I was impressed by the full-bodied sound which remained nicely balanced across all the performance modes. After trying them all out and playing around with the EQ and filter

Alternatives

This is a well-populated area of the market, with competing speakers in the **Yamaha DSR**, **JBL PRX**, **Mackie HD**, **dB Technologies LVX**, **PreSonus StudioLive**, **RCF HD** and **4-Pro**, and **FBT Pro-Maxx** product ranges.



options, I decided I quite liked the Speech mode even with full-range music material, as the extra crispness was always smooth and helped bring the vocals forward without sounding harsh or tiring. There's a lot to play with here, and the choice of settings available should satisfy most live-sound applications. Personalised settings can be stored, and if it all gets too confusing then everything can be reset to factory default with a single menu selection. It's a very clean-sounding system, and has a touch of the 'giant hi-fi' about it, but there's enough power available for moderate-sized outdoor gigs and loud indoor band stuff. As impressed as I was with the clean, clear sound of the EKK full-range boxes, I loved the output from the EKK-18SP subs — deep, solid and tight right up to the maximum output. For the size and weight of these subs I reckon the performance is eyebrow-lifting and I'd consider upgrading at least one of my own smaller systems with some of these.

Winter Warmers

I took the system out on a town-centre event, which has always presented issues with coverage and projection (essentially the stage rig is competing with nearby fairground rides, generator noise and hundreds of town-centre shoppers who are not part of the audience). As space was limited and the programme was mainly acoustic and speech I decided to use the EKK-15P speakers on tripod stands without the subs. When playing

warm-up tracks the system sounded full and had a really solid bottom end, even with the EVs on tripods on stage, which meant they were around nine feet or so above ground level. Projection was excellent and vocal clarity was maintained throughout the programme of school choirs, solo acts, announcements and speeches. I was controlling the rig from behind the stage (the only space available at that gig — I'm sure you have often done the same) but I did manage a walk out front several times and everything sounded loud, clear and, above all, very smooth — no harshness and none of that unpleasant honk you sometimes associate with loud shouty-type announcements to the Christmas crowd.

I rigged the EKK-15Ps on my own and although the manual advises (and I would not for a moment contradict) a two-person lift, I managed to get them up on their tripods without any trouble. These speakers are very light for their size and output power, and they're also easy to handle, which isn't always the same thing. I used the Speech setting within the DSP and left them there for all the live-music performance as well — I didn't need any deep bass and everything sounded very well. Coverage was even, although we were operating in a very reflective space (firing straight down a shopping street), and I did notice that the tonal balance of both speech and music sounded pretty much the same at the sides and in the centre of the audience. I was very happy with the EKK-15P units, and I'd be more than willing to put them up again for this type of job.

Final Thoughts

My overall impression of the EKK speakers was one of easy portability, adaptability and lots of clean power delivery. They are light, easy to rig and move around, and the variety of DSP options available should make them fit for a wide range of applications — they also look good, and don't take up much storage or transport space for their capability. Nice speakers, and well worth checking out if you're in the market. ■■■

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