

The Electro-Voice EKX-15P top and EKX-18SP subwoofer

by Christian Boche

Scarce any segment of the market is as keenly contested as that for powered speakers in the thousand euro league. The selection is wide; the competitors numerous. For a new system to make any impact in this class, convincing arguments are needed. Electro-Voice makes just such a case with its current EKX series. For the test, we took possession of two EKX-18SP subwoofers and two EKX-15P tops to see how they would perform in practice.



Surprise!

Initial apprehension from the spine and lumbar region: 18" basses and 15" tops are hardly lightweights, as a general rule-especially when, as is the case here, neodymium drivers are dispensed with. All the more astonishing, then, that the EKX-18SP subwoofer tipped the scales at a mere 33kg. The weight of the EKX-15P top, at 24.4kg, is comparatively normal and "borne" with the aid of two built-in handles. Although the EKX-18SP is among the lightweights, it would be nice all the same to have a castor option, so that over longer distances you could manage it alone. Unfortunately the cabinet is not designed to accommodate

Blue Wheels and the terms of the guarantee such as to discourage recourse to a power drill. The loudspeaker grilles are of a comparatively thin material and little force is required to push them in with your hand. Elevations on the baffle, of course, prevent the grille being pressed in as far as the drivers. The bass and top and equipped for a spacer pole, the subwoofer having an M20 receptacle and the top a simple flange that unfortunately prevents tilting without offering a second angle. On the other hand, the EKX tops can be flown and eight M10 flying points with internal metal brackets are integrated.

The multi-function cabinets offer the user what in practice a good monitor angle and the 90° x 60° dispersion pattern is plenty broad enough for monitoring applications, even though the solid plastic tweeter horn cannot be rotated. Thanks to the graphics-capable, backlit display and the detents on the gain pots, setting the DSP poses no problems even on dark stages, and matching the gain of multiple boxes is simple. If you turn the gain pot all the way to the left, the box is muted. Some competitors employ a gain structure with their active electronics that only covers a range of +/- 10 dB. That makes it impossible to mute the box with a quick twist of the gain pot. The solution afforded by the EKX series is superior. The functions for setting the DSPs of the tops and subwoofers are for the most part identical. They differ in terms of connectivity however. Whilst the subwoofer boasts two combo input sockets, two XLR link outputs and a gain pot, the top is equipped with combo sockets and one XLR link out socket. The connector panel of the top is even laid out in stereo with separate gain pots. What is provided is essentially a two-channel mixer accepting not only line level sources and playback devices introduced through the additional RCA inputs but also microphone signals. The master volume encoder with its push function serves also as the edit button for the DSP. The EKX boxes come with four basic sounds – Music, Live, Speech and Club – with an array of suitable crossover points that takes in other EV series (ZLX, EKX, ELX) as well as a selection of low-pass frequencies (80, 100, 120, 150 Hz). The DSP with its three-band EQ can display the

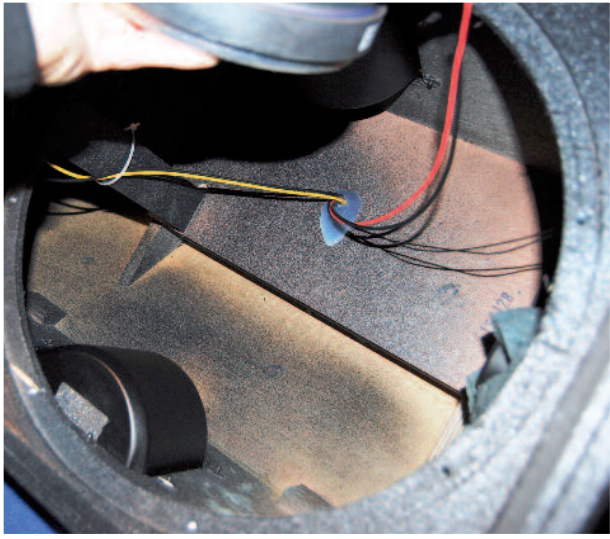
limiter status, input level and master volume graphically if desired. Five user presets (store & recall) are provided for the chosen settings. The subwoofers of the EKX series also offer pre-programmed cardioid presets in case the sound on stage ever becomes too bassy. As is usual in this price category, standard cold-device cables carry the power; it would have been nice, at least, to have latching connectors. The integrated fan is not among the quietest models but is only activated under load.

Since the boxes were earmarked for two live events, once I'd listened to all the presets of all boxes, I opted for the Live setting. The master volume remained in the 0dB position. This is a good start from the standpoint of volume ratios, as the basses, for my taste, need no extra shove to keep up with the tops. Speaking of "taste". The tweeter of the EKX-15P is a tad too dominant for mine, so I bring it down 3 dB with the internal DSP EQ and store the final parameters as a user preset.

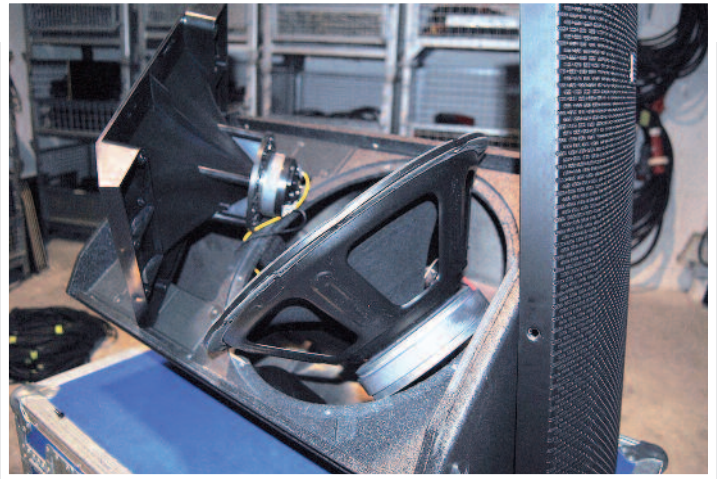


The EV EKK-15P cover the front rows of the audience, having to contend against a powerful horn PA





The enclosure contains no damping material even in the base



The integrated 15" ferrite driver



In fact, this venue is impossible to cover – yet, despite the experimental setup (see photo on the right), the sound turns out well



PROS/CONS

- + easy to operate DSP
- + astoundingly high output
- + five memories for user settings
- + quality of finish
- + good value for money
- + natural sound - well tuned
- + comparatively light subwoofer
- + integrated dual channel mixer (top)
- thin loudspeaker grille
- no tilt options for the top
- no castor-option for the subwoofer

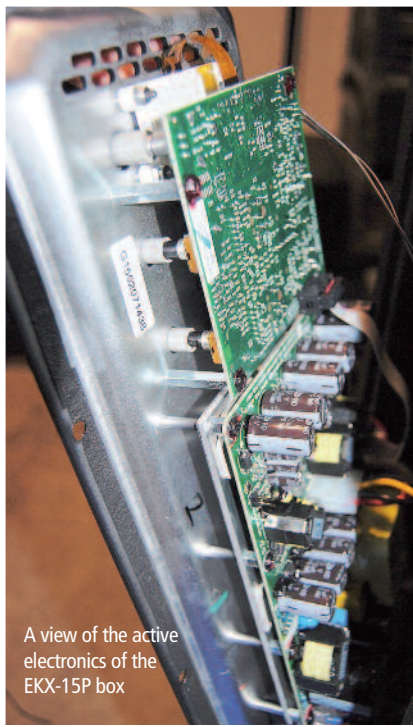
Make loud!

The first task was to provide sound reinforcement for the cover band Treasure. After discussions with the venue's sound technicians, it was decided that two EKK-15P cabinets should cover the first few rows of the audience as infills. Since the main system included two GAE "Director" tops with eight 18" basses, the Electro-Voice candidates had to demonstrate that they could hold their own in terms of level. The EKK were controlled via the matrix outputs of the digital FOH mixer carrying the sum signal post fader. During the soundcheck, the levels remained within reasonable bounds, but in the course of the evening, as more and more people showed up, higher levels became necessary. And since the band churned out five sets, the evening turned into a marathon test for the EKK. During the last set, I snuck forward and could see from the display of the boxes that everything was still in the green, with the limiter never being called into action – something I hadn't expected. The audience by then had pressed right up to the front of the stage, so infill represented the only way of pro-

viding coverage to the front rows worthy of the professional band they'd come to hear.

Impossible acoustics

A few days later, the entire test setup had to prove its mettle during a pub gig played by a house and yard band. I phoned the licensee in advance only to be warned that the venue was not one that lent itself easily to sound reinforcement. When I arrived, I realized that was something of an understatement! The place was basically impossible to cover with a conventional PA. The band wore looks of consternation; the sound man was perplexed. After contemplating the problem for a while, we tried out various box positions in the hope of providing the U-shaped room with at least a semblance of even coverage. One stack served the small aisle in front of the stage, while the other "beamed" through a long corridor. We had to hurry with the setting up, as in the pub that evening they were showing the first day of the Bundesliga season. There was only time for a quick function check with the iPod, whilst the soundcheck had to wait for the



A view of the active electronics of the EKX-15P box



The connector panel and display of the EKX-15P top

first song. The prevailing mood, it must be said, was anything but cheerful, as Borussia Dortmund had sent the "real Borussia" from Mönchengladbach, the local favourites, packing 4:0.

Due to the steady rain, the pub by the time the game ended was hopelessly overcrowded, so I was only able to take photos during the first set. Thereafter I needed both hands to just to keep hold of my FOH desk (i.e. my iPad) amid the throng. The master EQ remained untouched and I was surprised at how well the first announcement came through. Since I've been on the road with this band for almost 20 years, I know all the gain values for the microphones off-by-heart and have also stored the usual EQ corrections in the individual back room DSP. But on account of the sub-optimal box positions, I expected stronger reflections and feedback at the front. To avoid this, I began with a moderate level for the first number only gradually moving the fader to the 0dB point. Rich, full sound with a very high level of intelligibility permeated the room!

Specifications

Manufacturer: Electro-Voice

Models: EKX-15P top and EKX-18SP subwoofer

EKX-15P top

Frequency range (-3):
55 Hz - 18 kHz

Maximum SPL: 134 dB

Drivers: LF: EVS-15M - 15",
HF: DH-1M - 1"

Crossover frequency: 1.7 kHz

Connections: 1 x stereo RCA input,
2 x XLR/TRS combo sockets and
1 x XLR link output

Cabinet: 15 mm plywood,
structured coating, 8 x M10
mounting points

Dimensions:
685 mm x 432 mm x 429 mm

Weight: 24.4 kg

EKX-18SP Subwoofer

Frequency range (-3):
40 Hz - 150 Hz

Maximum SPL: 134 dB peak

Drivers: EVS-18C - 18"

Low pass frequencies: 80 Hz,
100 Hz, 120 Hz, 150 Hz

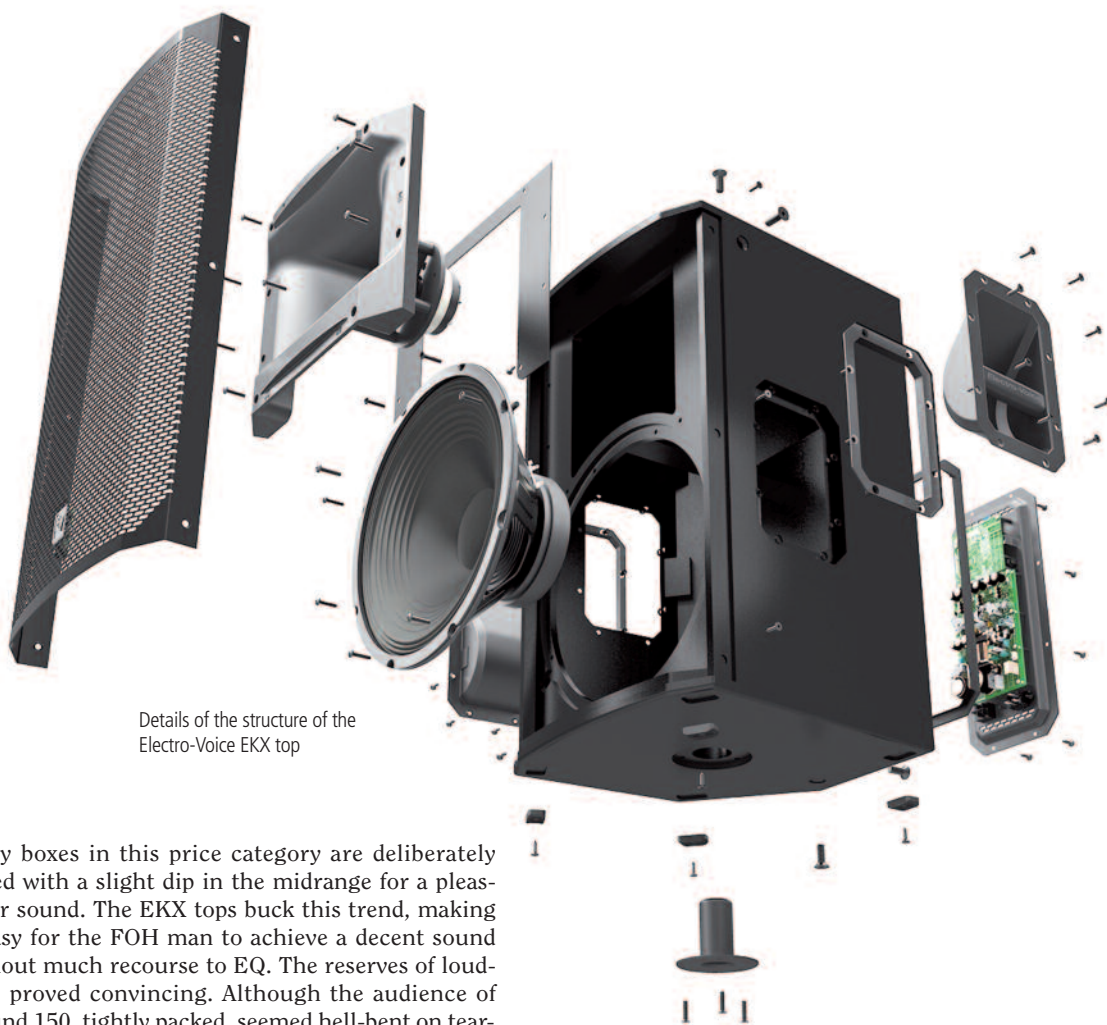
Connections: 2 x XLR/TRS combo
sockets, 2 x XLR link outputs

Cabinet: 15 mm plywood,
structured coating

Dimensions:
685 mm x 432 mm x 429 mm

Weight: 32.8 kg

www.electrovoice.com/ekx



Details of the structure of the Electro-Voice EKX top

Many boxes in this price category are deliberately tuned with a slight dip in the midrange for a pleasanter sound. The EKX tops buck this trend, making it easy for the FOH man to achieve a decent sound without much recourse to EQ. The reserves of loudness proved convincing. Although the audience of around 150, tightly packed, seemed hell-bent on tearing the joint down, the Electro-Voice EKX test rig still had plenty of power to spare. Unusual in this price category. The sound technician triumphed, the fans raved, and even the band, after years of 'abstinence', was coaxed into a third set.

Finale

I'm guessing MacGyver works in the Electro-Voice development department. Only he can make an atom bomb out of salt and pepper pots. By analogy, I can testify that Electro-Voice really has obtained first class performance from the individual components in this EKX series. The system is comparatively light, plays astoundingly loud, yet sounds balanced and harmonious. The integrated DSP is easy to operate

and offers even the less experienced user plenty of sensible presets for different applications. Hopefully the distances involved will not be overlong, as the EKX-18SP bass unit has no castors and is not suitable for Blue Wheels. A dual receptacle for pole-mounting, so that the top could be tilted, would be a desirable option – the only option being recourse to the König & Meyer range. In terms of price, though, this system is an absolute steal! Furthermore, it's right up there with the very best in its price class in terms of general performance and sound. Reason enough for small to medium-sized rental firms, ambitious musicians, and DJs to give the system a listen. I expect they'll be as surprised as I was. ■

Invited to comment

Helmut Seidl of Bosch Security Systems GmbH:

"Clearly we've achieved the desired effect of surprise with the new EKX loudspeaker family, which is very gratifying. I can only agree with the author that the "MacGyvers" in our Development department have really pulled off something remarkable here. In my view, no model in this price category represents better value for money. The components used, the Signal Synchronized Transducer waveguide design, class-D amplifier and intuitive to operate Quick Smart DSP transducer are state-of-the-art technologies of the kind you only really expect in the higher price categories. Thanks to the user-friendly handling

characteristics and many-faceted application possibilities, these boxes are recommended as problem solvers even in difficult (or, as in today's test, "impossible") sound reinforcement situations. The features criticized in the article are, I believe, defensible, as the front grille, for example, despite its lightness, is in fact robust and plenty tough enough for life on the road. The special design combined with ingenious bracing within the cabinet guarantee maximum stability. The EKX series, incidentally, also includes 12" tops and 15" subwoofers and passive versions of all the loudspeaker models are also available."