

Issue 28 • April 2010

INTERNATIONAL

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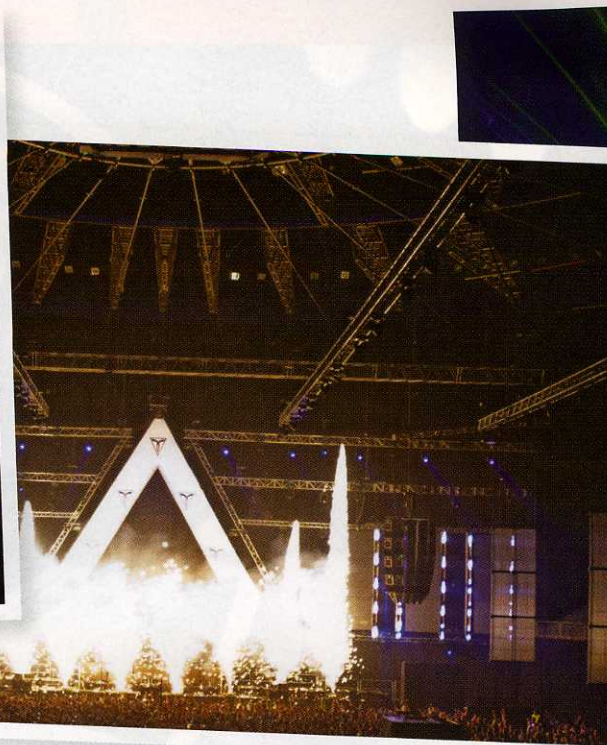
ULTRA HIGH TRANSMISSIONS

United Music brings a new level of production to the Czech Republic

PL+S REVIEW • MUSCLE SHOALS • SMALL FORMAT PA • FREEMASONS • PLASA FOC



Power On Der



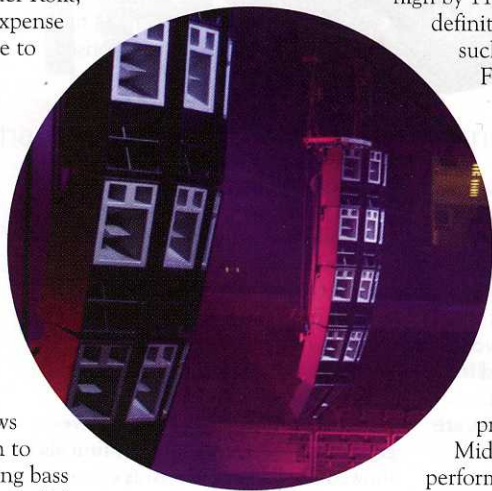
Ancient transmissions

United Music's annual trance music event, Transmission, is created with extremely high production standards. Last year's event featured the largest configuration of Funktion-One F221 bass bins ever used and Glastonbury-sized loudspeaker clusters. **Andrew Low** talks to the Transmission team ...

From lasers to lighting, video and fireworks to bass stacks totalling 37 Funktion-One F-221 bass cabinets, Transmission is praised as having some of the highest production standards in Europe. Held annually at Czech Republic's O2 Arena, last year's event was created with an 'Ancient Mysteries' theme and featured a full Funktion-One system with MC2 amplification and XTA processing among elaborate stage settings and visuals that rivalled an intergalactic fight scene from a science fiction movie.

United Music's director, Anco van der Kolk, explains that Transmission spares no expense in bringing an unforgettable experience to the 15,000 punters that attend the annual event. He comments: "The events that I was familiar with from growing up in Holland were focused more on the details and production then, say, in the UK where the focus is more on the DJ. We create the concepts for Transmission ourselves and invest money to make it as good as possible."

With no restriction on noise levels and an arena with great acoustics, UK rental company Audio Plus and Funktion-One's Tony Andrews were able to design a mammoth system to fulfil van der Kolk's desire for thundering bass and even coverage throughout the venue. "The year before we used an L-Acoustics system, which was not bad, but I felt like it could be better. I had heard the Funktion-One speakers in dance clubs and wanted to bring that sound to an arena," van der Kolk explains. "The main difference I noticed with the Funktion-One system was the fantastic bass sound. The spread of the sound throughout the whole venue was also much better."



Audio Plus system tech Mark O'Neill comments: "There were huge expectations on us supplying this system; not only did we have to out perform the VDosc system used before, we also had to get a chest-pounding bass response to the back of a 15,000-strong audience. We knew they wanted the wow factor, so we used 37 F221A twin 21-inch bass enclosures compared with the 12 we would normally use on a rock n roll show in this type of space. There were 14 per side, two wide, seven high – these bass stacks ended up being 14 feet

high by 11 feet wide giving us control and definition that dance music demands in such a large space. We also had nine F221A bass enclosures across the center in blocks of three with two Res2s on each block for infill. The 58 Res5s controlled dispersion allowed us to ensure the mid/hi coverage throughout the arena with plenty of headroom. We had two main clusters consisting of 20 Res5 and five R4D (downfill) with two delay points at approximately 50m, each consisting of nine x Res5. Sound quality was prioritised with the use of XTA DP448 processors, MC2 E45 amplifiers and a Midas XL4 at FOH. The system performed with outstanding results."

Funktion-One's Tony Andrews was also on hand to help tune the mighty system. "It was a long venue, almost the size of Wembley, so we put them in a block of subs to power the bass all the way to the back," Andrews comments. "My main priority was to keep it on the floor for those who wanted to get the full experience, and it did that. And around that stack when it was working it was notable that, although the space was packed, only a few people were

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Anco van der Kolk
United Music



standing around the stacks. Only the completely insane were near it," he laughs.

"It not only had height but it also had a decent amount of width. We didn't use them to full power at all. In fact I don't even think we got out of the amber lights."

The large and tall stacks were also configured specifically to avoid the problems created when subs are placed across the lip of the stage. "If you put subs across the front of the stage they are going to give pretty narrow coverage and they will not get back into the bleachers," Andrews explains. "What they will do is curl back on the stage and completely confuse your mix. When you are working in a small place you might not have the choice but to put them across the stage, but by and large it is not a good idea.

"I don't like the idea of pointing bass backwards and cardioiding it. It is a timing issue that relates to dimension, and dimension relates to frequency, so it is only going to work at a narrow band of frequencies. I guess you can do it if you are using those one-note bandpass bins that are already very narrow because they are not making the rest of the bass frequencies. I just figured that we should put up a solid stack and power it the way we usually do. And we used our XTA self powered speakers, which saved time and space."

XTA processors formed part of the AudioCore Control Network, along with Funktion-One powered enclosures that were part of a FunktionNet monitoring network. The whole system was accessible via wireless tablet.

Andrews comments: "It was great to use the XTA wireless control. Literally, as the show started we were able to dial the delays in. If you are at the top of the bleacher it is a single delays setting and if you are at the bottom it is definitely another, so you pick the medium position.

"With the tablet PC and wireless system we were able to adjust it so that the delay actually disappeared and it sounded like it was all coming from the front. The timing of the delays has to be done in real time by adjusting in milliseconds, and it only took us about five minutes to do. And we were able to be in the crowd doing it. It is better to adjust them when the people are in the venue because, acoustically, it is less reflective.

"If you set the system during the day and then add people six hours later it will have a totally different environment. The humidity and temperature will have changed, so you need to be able to do it at the start of the gig. Humidity and temperature change the speed of sound through the air. When you are dealing with milliseconds, and bear in mind that we can resolve down to 15 to 20 microseconds, it needs to be done."

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Tony Andrews
Funktion-One

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