

## Flying High

While many loudspeaker manufacturers only offer flying fixtures for specially adapted third-party equipment, every Alpha System cabinet features integral fittings for NEXO's proprietary Crossbow flying system. Designed along with the Alpha System cabinets, the Crossbow system provides a practical, flexible and highly ergonomic means of flying speaker arrays. Each vertical column of Alpha cabinets is suspended from a single Crossbow bar, and multiple column arrays can be easily assembled by clipping the Crossbow elements together via a solid hinge assembly at the rear and a dual wire link at the front.

Crossbow components are tested to exacting safety standards and will comfortably support arrays as tall as 16 single-height cabinets (M3/M8 & B1) or eight double-height cabinets (S2).

Experienced live sound professionals are well aware of the importance of array formats in achieving optimum results.

NEXO's comprehensive flying manual not only covers the practical aspects of using the rigging hardware, but also provides extensive array configuration suggestions based on our real-world experience.







## **NEXO** Design

Colourless sound delivery has long been the holy grail of loudspeaker manufacturers. No-one comes closer to the ideal than NEXO, and with good reason; for nearly 20 years we have been developing what is perhaps the world's most sophisticated loudspeaker software design package to help us towards this goal. In its latest development it deals not only with the physical characteristics of horn design, but also more esoteric elements such as moving mass, compliance, inductance, voice coil DC impedance, cone surface area and mechanical resistance.

A direct product of NEXO's unparalleled understanding of real loudspeaker performance, this complex software model enables our engineers to approach loudspeaker design as NEXO has always believed it should be – as a science, not an art. This is the key to NEXO's success – quality through superior engineering.

The Alpha System is, put simply, the ultimate product of this approach. The culmination of 20 years research, Alpha represents the very best in live sound performance – high-output, full-frequency systems delivering absolute clarity without colouration, in an ergonomic, reliable cost-effective package.







# The Alpha System

Undoubtedly one of the most advanced loudspeaker systems available today, NEXO's Alpha embodies exceptional high-Q performance, ease of handling, superb power-to-weight advantage and an advanced acoustic design.

Because system characteristics such as directivity, frequency response, dynamic response and SPL can be easily controlled and understood, even in the biggest systems, Alpha stands for predictable, precise and effective system design and construction – something that all sound engineers will appreciate.

In all applications, however, the system's inherent accuracy means a perceived improvement in intelligibility, output levels and audio quality.

#### The Alpha advantage:

- Flexible system design through interchangeable high-Q/medium-Q HF horns
- Advanced co-axial waveguides with multipath phase devices
- Low amplifier power requirements
- Perfect touring truck packs
- Advanced TDController management system
- Interlocking skids and all-steel cabinet fittings
- Optional clip-on front cover/wheelboard

And last but not least: Crossbow, a truly integrated world-class flying system which offers the most versatile system arraying formats possible.

#### Alpha M3/M8

The M3 & M8 dual-driver mid-range/HI
assemblies differ only in their HF dispersion
characteristics. The M3 has a high-Q (directivity
waveguide of 35° x 35°, whilst the medium-Q M8
exhibits characteristics of 75° x 45° (H x V). Both
units deliver extremely low distortion and
coherent output with a frequency range from
190Hz to 19kHz. Peak SPL for the M3 is 145dB,
and 143dB for the M8.

### Alpha B1

The B1 provides coherent output in the critical range from 42Hz to 109Hz, and is fully capable of providing full range performance in applications where extreme sub bass response is not required, The B1 can be stacked or flown in arrays along with M3/M8 and S2 cabinets.

Peak SPL for the B1 is 140dB.

### Alpha S2

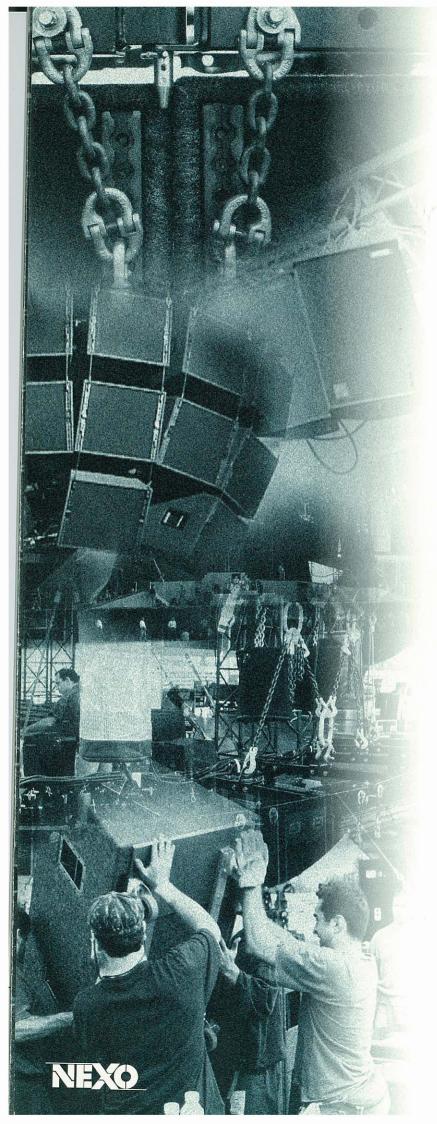
S2 cabinets can be added to Alpha systems to extend the LF response down to 32Hz when extreme sub bass reproduction is crucial. S2 enclosures may be stacked or flown along with any other cabinets in The Alpha System. Peak SPL for the S2 is 140dB.

### **NEXO Control**

The use of active controllers is an important part of NEXO's approach to system design. In the Alpha System, the Alpha TDController and Sub TDControllers are required to achieve the very high levels of performance of which the M3/M8, B1 and S2 cabinets are capable.

Acoustically matched to their respective cabinets, these two mono electronic processors control the temperature and displacement of each drive unit to achieve optimum performance. By measuring the voltage and current through the system and then using complex software algorithms to predict heat increase and instantaneous displacement of the driver, the controllers work in real time to provide the correct amount of adjustment at all times — even in extreme circumstances such as the whole system being powered down and immediately back up again.

If the controller detects that the drivers are being asked to over-perform, it engages a VCEQ which acts as a transparent notch filter matched to the appropriate drivers. This filter attenuates the problem frequencies – not the entire signal – until the driver displacement returns to acceptable levels.





# A System Designe

The NEXO advantage goes further than sonic transparency. The Alpha System is designed to integrate seamlessly with real-world applications and real-world users. From the tiniest detail to major system-wide design decisions, Alpha is built to work with you as well as for you.

NEXO recognises that running a touring sound rig can be an organisational nightmare. We realise that you need to badge your speakers, and as simple as it may sound, we also realise that gaffa tape doesn't stick to carpet covering. A metal plaque on the rear panel of every Alpha System cabinet means that once a speaker is badged with a destination, it stays badged.

The Alpha System ensures that amplifier-to-cabinet ratios are optimised. Up to six speaker stacks can be driven from just three amplifiers - and setup is fast. When a quick get-in is crucial, the key member of your road crew is the Alpha System. For many customers transport costs can be almost as important as audio characteristics. With this in mind, the Alpha System was designed

from the start to maximise the number of cabinets that can be packed into each square meter of truck space.

### For The End User

While extremely compact, the Alpha System delivers awesome power when called upon to do so. When the designers of the Stade de France, the



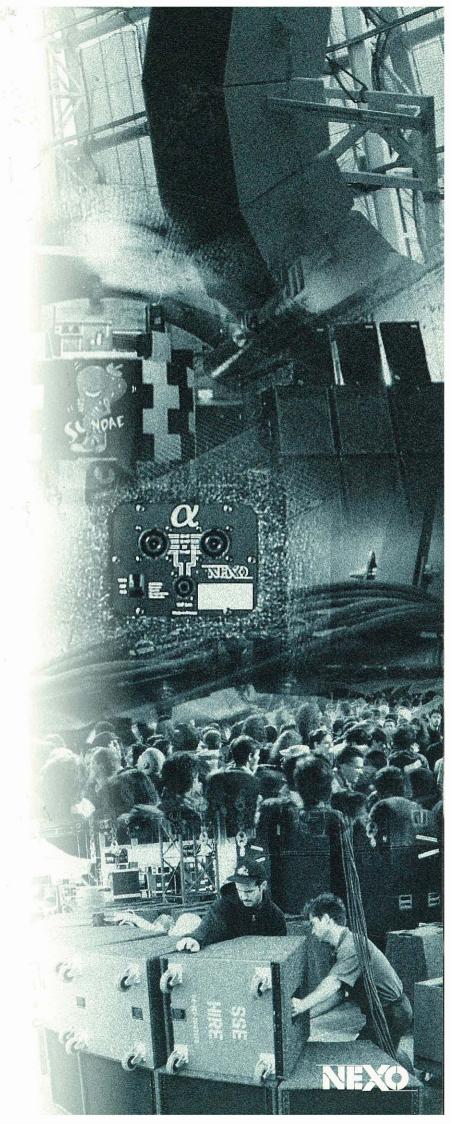
The Stade de France

nerve centre of the 1998 World Cup, came to specify a sound system for permanent installation, they

embarked on a stringent evaluation programme.

Sound pressure level, directivity, reliability and intelligibility were all put to the test. Only one system delivered the required level of performance in all these areas - the Alpha System.

The unsurpassed sub-bass performance of the Alpha System makes it ideal for reproducing the low frequency content which is so dominant in contemporary dance music. This low-frequency ability is complemented by the high-frequency components' sheer power and clarity, ensuring that music retains its detail to cut through the most humid and hostile dance environment. What's more the true 'plug-and-play' connectivity of the Alpha System, using a simple combination of 8-pole and 4-pole Speakon connectors, makes it an ideal choice for club use.





### **Total Flexibility**

The sign of a truly great system is its acceptance across the full spectrum of sound reinforcement applications. The Alpha System has achieved this status within a year of its launch, with its adoption



by clubs, hire companies and fixed installations alike.

Around the world, clubs of all sizes are now using the Alpha

System to deliver the quality of sound demanded by today's

clubgoers. The 6,000-plus capacity Bengkel in
Jakarta, one of the world's biggest clubs, has
recently completed the installation of a 60,000 Watt
Alpha System. Equally at home in smaller venues,
the Alpha is also proving its versatility in clubs
such as Mandara 5, the Blue Note and Penny Lane
in Japan, Mid-City in New Zealand, and the Ribas
Music Hall in Greece. And at the heart of the
international club scene, specialist UK company
Eskimo Noise use the Alpha System for all their
events.

Further installations of the Alpha System in sports grounds and stadia, churches and town halls is additional proof of its ability both to meet the exacting demands of users and to satisfy official regulations covering today's ever expanding installation industry.

During 1997 SSE Hire of the UK undertook every kind of project from major rock festivals to corporate events, closing the year with the much publicised Midland '97 music festival. Staged in the shadow of London's Battersea Power Station, this saw an Alpha System installed in the world's largest temporary structure, a huge tent the size of an arena.

Whatever the application – from rock tours, through nightclubs to theatre or fixed installations

the NEXO Alpha
 System will meet and
 surpass your highest
 expectations.











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