



# Loudspeaker Systems

MORE THAN 60 YEARS OF PRO AUDIO EXPERIENCE

Mobile Audio | Concert Sound | Fixed Installation | Pro Entertainment



**DYNACORD**  
GERMAN ENGINEERING EXCELLENCE

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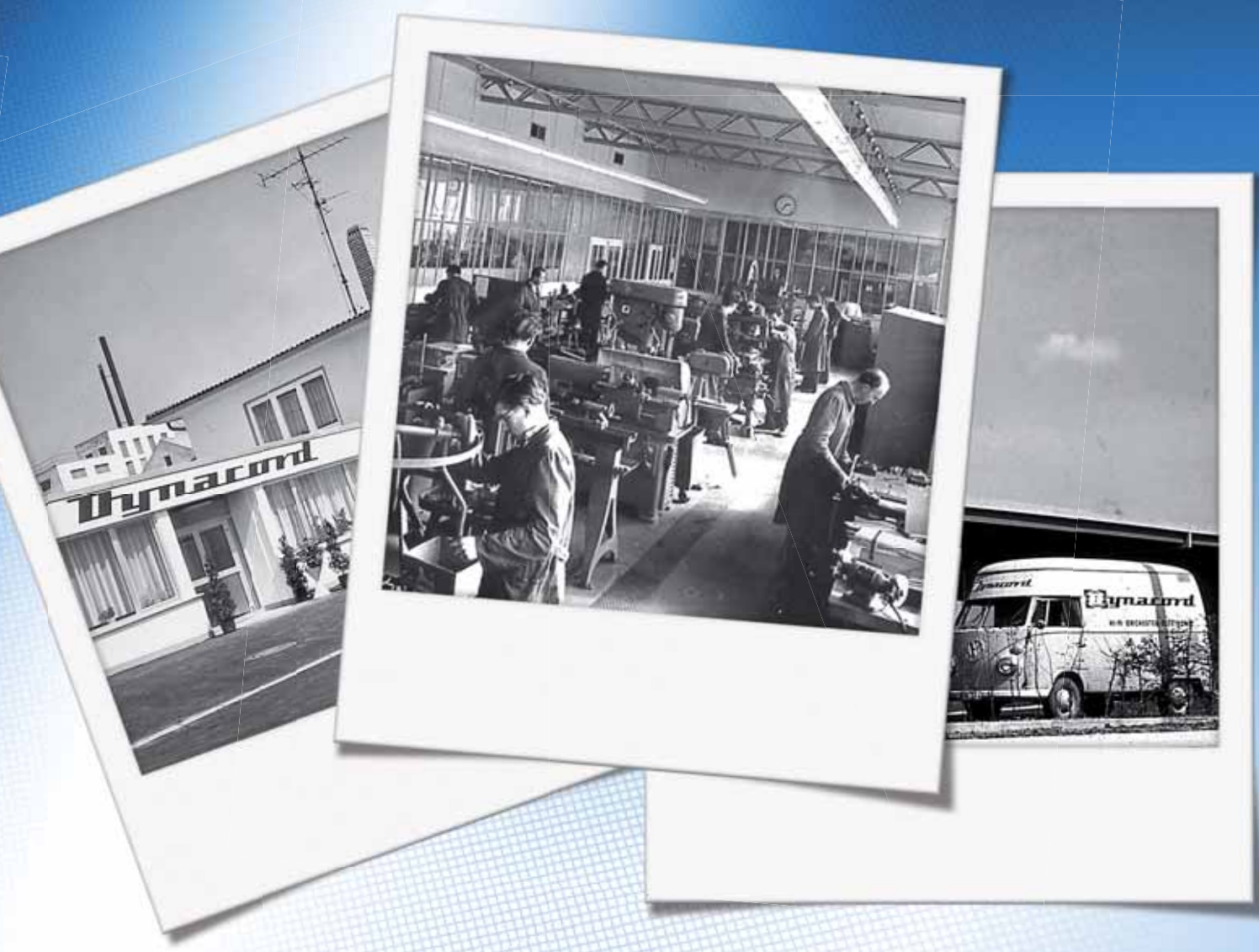




## German Engineering Excellence

FOR MORE THAN 60 YEARS, DYNACORD HAS BEEN ONE OF THE MOST INNOVATIVE AND SUCCESSFUL MANUFACTURERS OF PROFESSIONAL AUDIO EQUIPMENT.





**In 1945 Werner Pinternagel, who was an engineer, founded a workshop for the repair of radio devices in the Lower Bavarian town of Pilsting. The development and manufacture of audio amplifiers, which he began at the same time, became a particular passion.**

These pioneering experiences formed the foundation for over 60 years of expertise in professional power amplifier technology — expertise upon which the brand DYNACORD is able to draw today. Early results included the KI cinema amplifier with its output of 25 watts. The devices of the company, which

in the meantime had moved to Landau and by then boasted a staff of four employees, still bore the brand name 'Dynaphon'.

From 1948 onwards, mixing and portable amplifiers bearing the name DYNACORD were being sold to an ever expanding circle of customers. Within a few years, the rapidly growing company had become one of the leading enterprises in the still young audio technology industry. Already in 1954, the manual workshop have given way to industrial production as the product portfolio continued to expand. The high-caliber, pioneering

and often visionary products have been presented ever since at all important international trade fairs and marketed successfully throughout the world. To make it possible to satisfy the enormous demand, DYNACORD moved to Straubing in 1958. The workforce, which at that time numbered 80 employees, continued to expand rapidly. Several times, the production facility was renovated or expanded.

Finally, in 1986 a new plant was opened in which more than 500 employees now develop, produce and dispatch the company's products to all corners of the globe.

# Milestones

THE CONSTANTLY EXPANDING PRODUCT RANGE YIELDED MANY PRO AUDIO MILESTONES.



■ **A high degree of innovation, uncompromising quality, exceptional user-friendliness and truly legendary reliability and value retention have for over 60 years defined the brand DYNACORD.**

- the first generations of professional mixing amplifiers [Eminent, Gigant]
- the first tape-echo/reverb devices [Echocord]
- the first 'affordable' digital reverb device [DRS 78]
- the most advanced digital drums [ADDone, ADDtwo]
- the first professional digital reverb device based on 32-bit floating-point processing [DRP-20]
- the first processor power amplifiers with LPN filters [PCA series]
- one of the most successful power amplifiers in concert sound [L2400 / EV P3000]
- the first processor-controlled complete audio system [P3, P5]
- the first digital loudspeaker controller with graphic display of the acoustic system frequency response in the editing software [DSP 224 / 244 with CrossMax and EV Dx34 / 38 with RACE]
- the Planar Waveguide bass horns [F 18, Alpha B-3 and many others]
- the world's most powerful disco system [Alpha]
- the world's most successful powered mixer [PowerMate]
- the first stackable compact line array system [Cobra]
- the first Class H grounded bridge high-performance power amplifiers [PowerH]
- the unique IRIS-Net network software [incl. remote supervision, remote control of power amplifiers and digital audio matrices]
- the first digital power amplifiers with VLD-variable load drive [DSA Multi-Channel]



Echocord



DRS-78



PowerMate



Cobra



PowerH









## Bosch Production System

QUALITY WITH SYSTEM

■ **With the introduction of the Bosch Production System (BPS) at the Straubing works, the brand DYNACORD is further enhancing its already legendary reputation for the highest production quality and reliability.**

Quality with system is assured by the BPS worldwide in all Bosch production centres, since absolutely identical indicators, equipment and processes are applied systematically throughout the enterprise. Decisions about which products to produce in which plant are primarily based on core areas of competence.

The same goes for the development. The first measures to guarantee quality are applied as early as the development phase of a product, where the 'thermal and mechanical stability', the 'secure functioning of the circuitry' and the demands of quality such as the acoustic performance and the product functions themselves are all ascertained in advance and rigorous tests conducted before any final decisions are taken about the design.

Decades of experience and the most modern quality management systems guarantee the extraordinary quality and legendary reliability of DYNACORD products.



## Manufacturing

■ Since September 2006, DYNACORD has belonged to the BOSCH concern's Security Technology department.

The production facility in Straubing has been considerably expanded and the work reorganized along the lines of the Bosch Production System (BPS). Part of the new investment involved the construction and commissioning of what at 600 square metres and 11 meters height is one of the world's largest audio



*Manufacturing in Straubing, Germany*





## Measurement Hall

PART OF THE NEW INVESTMENT INVOLVED THE CONSTRUCTION AND COMMISSIONING OF WHAT AT 600 SQUARE METRES IS ONE OF THE WORLD'S LARGEST AUDIO MEASUREMENT HALLS.

measurement halls. A reverberation time below one second allows for measurements under realistic conditions. One of the particular strengths of the brand DYNACORD is the fact that over the many years of its history profound know-how, covering the entire signal chain from the mixer to the loudspeakers has been acquired.

This advantage, coupled with its traditionally close relationship with users, has yielded many unique solutions to once-vexing problems and helped DYNACORD to develop a reputation the world over as a manufacturer of top-flight audio equipment on the absolute cutting edge of development.

■ **Additional capacity is available at the Bosch plant in Zhuhai, China, where the production also conforms to the BPS and quality controls are conducted using identical procedures and equipment.**



*Manufacturing in Zhuhai, China*







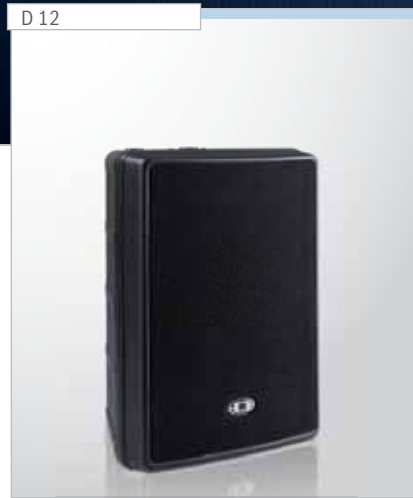
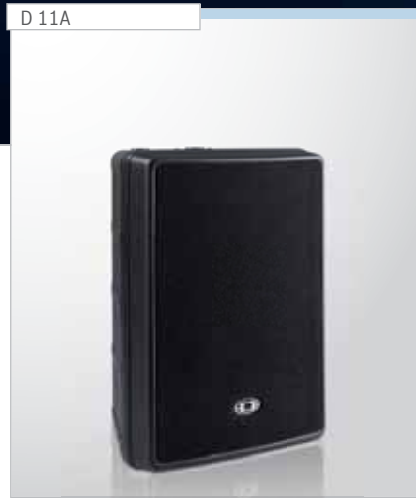
## D-Lite

- D 8 / D 8W
- D 8A
- D 11A
- D 12 / D 12W
- D 12R / D 12RW
- D 12-3
- D 15-3
- Sub 112
- PowerSub 112
- PowerSub 212
- PowerSub 312
- D-Lite 1000
- D-Lite **active**one
- D-Lite **active**two
- D-Lite **active**three
- D-Lite **active**four



# D-Lite

## LOUDSPEAKER SYSTEMS



D 12R



D 12RW



D 12-3



D 15-3



**The full-range speakers of the D-Lite series are extremely light, mechanically durable polypropylene cabinets for professional portable and fixed installation sound reinforcement applications in small to medium-sized venues.**

The wide range of mounting accessories available for the enclosures and their tasteful styling permit them to be used without problems in critical fixed installation applications. Being of polypropylene, the enclosures are capable of withstanding the roughest handling during transport and use. The integration

of the constant directivity HF horns into the baffle is CAD-optimized. The robust powder-coated steel grilles at the front of the enclosures are backed by black acoustic foam plastic. Both the Speakon sockets in the connection panels are recessed to allow the cabinets to be operated in cramped locations.

The beveled sides of the enclosures allow them to be used without problems in monitor applications in which more bass extension is required than that provided by typical monitor loudspeakers. Robust handles, integrated stand adapters, and a wide range of flying and mounting

accessories facilitate the transport and setting up of the enclosures as well as allowing them to be ideally positioned and aimed. Very powerful amplifiers can be used to achieve the widest possible dynamic range, as the loudspeakers of the D-Lite series offer very high power handling and are for the most part afforded additional reliable protection by the fully electronic Voice Coil Tracking Protection system, as well as halogen protectors against thermal overload. The internal passive crossovers are optimized for long throws and even dispersion, allowing D-Lite cabinets to be used under acoustically unfavorable conditions.

# D-Lite

LOUDSPEAKER SYSTEMS





POWERSUB 312



■ **Suitable active and passive subwoofers implemented as vented direct-radiating enclosures permit flexible system configurations.**

*The reflex systems of these subs, when compared with conventional bass reflex ports, are characterized by less flow loss and less wind noise. High sound pressure levels at very low frequencies are generated with considerably less distortion than is the case with conventional bass-reflex ports.*

*The passive varieties can, as a result of their integrated low-pass filters, simply be operated parallel to the various passive full-range boxes.*

*The active single-channel subs possess crossover outputs for the creation of active three-way systems with e.g. the models D 8A or D 11A. The three-channel subs already possess the requisite power amplifiers for passive tops and permit in the simplest manner the configuration of so-called 'satellite systems'.*

## D 8 and D 8W

FULLRANGE CABINET



*The D 8 is a very compact, lightweight and mechanically very robust 8" / 1" two-way thermoplastic cabinet for professional sound reinforcement applications.*





■ **It is remarkable in its class for the very high sound pressure levels it is capable of achieving as well as its outstanding audio performance.**

The wide range of mounting accessories available for the enclosure and its tastefully understated styling permit its convenient use even in critical applications in the fixed installation sector.

The housing is made from ABS and capable of withstanding the roughest handling during transportation and use. The D 8's bass

and midrange is the responsibility of the DND8200-8 low-distortion neodymium woofer. The integration into the baffle of the symmetrically radiating Constant Directivity high frequency horn, with its nominal radiation angle of 90° x 90° (horizontal x vertical) and Electro-Voice DH3 driver, is CAD-optimized.

With power handling of 250 W (rated) and 1,000 W (peak), a maximum SPL of 124 dB and a frequency range of 65 Hz - 20 kHz, the D 8 performs outstanding service not only as a full-range cabinet but also as the mid / high component of active and

passive satellite systems of superior quality. The crossover is optimized to achieve a long throw and a very even sound pattern, permitting the use of the D 8 even in unfavorable acoustic environments.

The loudspeaker components are guarded by thermo-switches and halogen protectors against thermal overload. The front is clad in black acoustic foam with a robust, powder-coated steel grille. The Speakon sockets on the connection panel are recessed. The enclosure is trapezoidal in shape, making it suitable also for monitoring applications.







## D 8A

### POWERED FULLRANGE CABINET

■ **The D 8A is the powered version of the D 8 offering integrated Class D power amplifiers, an electronic crossover and loudspeaker equalization.**

For the low and high frequency ranges, 2 x 200 W / RMS are available. The maximum overall amplifier output comes to 800 W IHF-A. The Line input is implemented as an XLR / jack combo socket. In addition, an XLR microphone input with a separate level control is available.

By means of the XLR Master Out socket, the mix of Line and Mic inputs can be looped through to additional powered cabinets.

For operation with powered subwoofers, a switchable low-cut filter is provided. The D 8A is notable for its high sound pressure level and a sonic image that remains free from distortion and discoloration even at the edges of its bandwidth.

It is ideal when combined with active subwoofers for the creation of very compact, active three-way high-powered systems for a multitude of applications in the live music, AV and fixed installation sectors.

The extensive range of optional accessories allows virtually unlimited use in fixed installations or flown configurations.





Distorsion-free, clear sound at peak levels





## D 11A

### POWERED FULLRANGE CABINET

■ **The D 11A is a conveniently equipped powered 12" / 1" full-range box offering integrated Class D power amplifiers, an electronic crossover and loudspeaker equalization.**

For the low and high frequency ranges 2 x 200 W / RMS are available. The maximum overall amplifier output comes to 800 W IHF-A. The Line input is implemented as an XLR / jack combo socket. Via the Line Thru XLR socket, the signal can be looped directly through to additional powered cabinets. The

controllable Stereo-Aux channel with RCA / cinch sockets permits e.g. the direct connection of CD or MP3 players.

In addition, an XLR microphone input with a separate level control is available. By means of the XLR Master Out socket, the mix of Line, AUX and Mic inputs can be looped through to additional powered cabinets. For operation with powered subwoofers, a switchable low-cut filter is provided. The D 11A is notable for its high sound pressure level and a sonic image that

remains free from distortion and discoloration even at the edges of its bandwidth.

When combined with powered subwoofers, ultra-compact active three-way high powered systems can be created very simply for a multitude of applications in both the live music and fixed installation sectors.

The extensive range of optional accessories allows virtually unlimited use in fixed installations or flown configurations.



## D 12 · D 12W · D 12R · D 12RW

### FULLRANGE CABINETS

*Weighing a mere 16 kg, the D 12 two-way full-range cabinet with its polypropylene enclosure has an extremely linear frequency response and is notable for its powerful, natural reproduction of the voice as well as its transparent resolution throughout*

*the entire frequency range. Its elegant styling and tasteful black or white finishes make it suitable for a very wide range of small to medium-sized events as well as critical applications in the fixed installation sector.*





■ The 12" DL 12 BFH high-power transducer covers the bass and midrange up to 1.5 kHz, whilst in the high-frequency range, an ND-2 neodymium driver is coupled with a large-format constant Q horn with an 80° x 40° coverage pattern, the integration of which into the baffle is CAD-optimized.

As with all the D-Lite cabinets protections by halogen bulbs, allow for high, distortion-free peak

sound levels can be generated, and professional power amplifiers can be used the rated outputs of which are the same as the peak values of the enclosures they are driving without the reliability of either being compromised.

Whether used solo as a full-range box or in combination with passive subwoofers, power amplifiers from the SL or LX series are recommended, as is the PowerMate.

The D 12R is a low-impedance, weather-resistant installation version with an integrated PG cable.

Like the D 12, the D 12T and D 12R are available in both black and white. The extensive range of optional accessories allows their virtually unlimited use in fixed installations or flown configurations.



## D 12-3

### FULLRANGE CABINET

**■ DYNACORD's traditional and popular 12" / three-way concept experiences a further dramatic improvement in performance with the introduction of the D 12-3.**

With its voluminous bass reproduction and its uncolored, extremely low-distortion vocal reproduction, combined with its transparent resolution throughout the entire frequency range, this lightweight full-range satellite stands head and shoulders above the multitude of other enclosures on the market made from synthetic materials. The tried-and-tested DL 12 BFH low frequency driver,

with its high power handling, transduces the frequency range below 700 Hz.

The midrange is handled by an extremely low-distortion DYNACORD DND 6120 neodymium MF driver, whilst a DH-3 coupled with a 90° x 50° constant-directivity HF horn delivers transparent reproduction of all frequencies above 4 kHz.

Thanks to the extremely broad (> 120°) conical dispersion pattern in the midrange, even in acoustically unfavorable venues it is generally unnecessary to go to great lengths to aim the en-

losures precisely at the areas to be covered. Whether the D 12-3 is used as a full-range box or in combination with passive subwoofers with integrated hi-cut filters, such as the Sub 1.15 or Sub 1.18, the PowerMate 1000 / 1600 or power amplifiers from the SL or LX series are the ideal partners. The Voice Coil Tracking Protection system combines with halogen protectors to provide the loudspeakers with reliable protection against thermal overload.

The extensive range of optional accessories allows virtually unlimited use of the cabinet in fixed installations or flown configurations.





Uncolored, extremely  
low-distortion vocal reproduction



## D 15-3

### FULLRANGE CABINET

**■ 15-3 designs are among the classics of pro audio history.**

With just such a design to which an ultra-modern twist has been added, the D 15-3 sets new standards in the area of professional polypropylene enclosures, reconciling the highest possible sound pressure levels, maximum power handling and linear frequency response with modest dimensions and extreme lightness. Equipped with a DYNACORD DND 15400 neodymium loudspeaker capable of high power handling, the D 15-3 convinces with its powerful and natural voice reproduction and impressive sub bass.

For the midrange, an extremely low-distortion DYNACORD DND 6120 neodymium loudspeaker is used, which with its conical 120° dispersion guarantees uncolored reproduction of vocals and freedom from alignment problems. The integration into the baffle of the constant directivity high-frequency horn, which has a nominal dispersion angle of 90° x 50°, is CAD-optimized, whilst the DH-3 HF driver provides transparent reproduction of the high frequencies.

The Voice Coil Tracking Protection system combines with halogen protectors to provide the loudspeakers with reliable protection

against thermal overload. The extensive range of optional accessories allows virtually unlimited use of the cabinet in fixed installations or flown configurations.

In addition to delivering excellent results in its role as a pure, full-range box, the D 15-3 can also be connected directly to a passive subwoofer with an integrated hi-cut filter, such as the Sub 1.18, and run in parallel, in which case no additional amplifier is required. The ideal drivers for full-range or full-range / sub combinations are the professional power amplifiers of the DYNACORD SL and LX series or the PowerMate.



15-3 DESIGNS ARE AMONG THE CLASSICS OF PRO AUDIO HISTORY.





## Sub 112

### SUBWOOFER

■ The DYNACORD Sub 112 is a vented, direct-radiating cabinet equipped with a high-power DYNACORD DND12S400 neodymium woofer boasting power handling of 400 W (rated) and 1600 W (peak).

The conical vent system results in less flow loss and lower air noise than conventional vented designs. High sound pressure levels are also generated at low frequencies with significantly less distortion than by conventional bass reflex vents. The Sub 112 contains a passive low-pass filter with a slope of 6 dB / octave. The Sub 112 can therefore be used directly in parallel to appropriate full-range cabinets, e.g. the DYNACORD D 8, if extended bass reproduction is required.

The Sub 112 cabinet is composed of birch plywood 15 mm-thick.

All corner joints and braces are grooved and glued. The cabinet's surface is painted with a robust, dual component lacquer finish. The acoustic foam and powder coated steel grille at the front protect the DND12S400 woofer from harm during transportation and against the deprecations of inclement weather. The connection panel offers two 4-pin Speakon sockets (INPUT / THRU) for a more secure connection and the easy daisy-chaining of cabinets. A threaded pole adapter is recessed in the top of the Sub 112 cabinet for the swift and safe pole-mounting of suitable full-range cabinets. The cabinet is equipped with four large rubber feet for greater stability. Two handles on the side make it possible to carry the device easily and safely.

A hard-wearing protective cover is available as an optional accessory.



# PowerSub 112

POWERED SUBWOOFER



■ The PowerSub 112 is the ideal bass extension for powered full-range cabinets such as the D 8A.

It is very light and despite its extremely compact dimensions provides a very powerful and deep bass foundation. The vented design gives the PowerSub 112 a very musical,

tight and voluminous sound, quite unlike that of the band-pass solutions widely encountered in this product class. The Class D power amplifier module delivers 200 W RMS / 400 W IHF-A and is equipped with an integrated crossover with a Mid / High output. The polarity can be reversed should other system components require it.





# PowerSub 212

POWERED SUBWOOFER



■ **The PowerSub 212 is an extremely compact, high-powered subwoofer with 2 x 12" drivers and a 2 x 200 W RMS / 2 x 400 W IHF-A Class D power amplifier.**

The integrated stereo crossover also supports the creation of active three-way systems with mono sub and active full-range cabinets (see System Combinations below).

The PowerSub 212 is the ideal partner for devices like the D 8A or D 11A and convinces with a deep bass foundation and very high sound pressure levels. As is the case with the PowerSub 112, the reproduction remains clean and distortion-free even at the edges of its bandwidth. Four smooth-running casters are provided for easier transportation.





## PowerSub 312

### POWERED SUBWOOFER

■ **The PowerSub 312 powered 12" subwoofer, which is equipped with an integrated three-channel Class D power amplifier with a total output of 1300 W / RMS, was specially conceived to permit the swift and simple creation of a subwoofer satellite system.**

As satellites, two passive loudspeaker systems such as the DYNACORD D 8 are needed. You only need to connect them to the Speakon outputs provided for the purpose. The „X-Over“ switch offers a choice of three discrete frequencies for the crossover between the subwoofer and the satellites: 70 Hz, 100 Hz and 140 Hz, whilst the „Sub Level“ control allows you to adjust the output of the PowerSub 312 in the range from -8 dB to +10 dB. The PowerSub 312 is made from multiplex birch plywood and capable of withstan-

ding the toughest challenges during transportation as well as in use. The integrated lightweight 800 W + 2 x 250 W digital power amplifier is perfectly attuned in every respect to the integrated DYNACORD DND 12S400 woofer to maximize the dynamic range and audio quality and ensure that the woofer is invariably driven within its optimum working range.

To provide further assurance that these operating limits are respected, the performance is supervised by additional protective circuitry such as voice coil protection, DC / HF protection, audio limiters, back EMF protection and thermal protection. Together these ensure that even when the most extreme demands are placed upon the system under the most unfavorable conditions, the PowerSub 312 continues to

operate flawlessly. The use of „Class D Digital Technology“ ensures that there is considerably less power dissipation than in normal Class AB designs. The thermal load on the components is therefore markedly reduced.

The enclosure is coated with 2K lacquer, which is extremely scratch-resistant and proof against rough handling during transportation. A robust, powder-coated steel grille protects the woofer against mechanical damage. All the control elements are recessed to provide optimal protection of the PowerSub 312's most sensitive parts even during transportation. For greater carrying comfort, the enclosure is furnished with two sturdy handles, whilst an integrated threaded pole adaptor allows you to make optimal use of precious space on stage.

# D-Lite 1000

## SYSTEM

System components:

- 2 x D 8
- 1 x PowerSub 312



■ **The D-Lite 1000 system is a convincing answer to the central demand of entertainers, mobile DJs, smaller bands and other users of mobile audio systems, which is for a system that is as compact as possible and as light as possible but capable nonetheless of delivering uncompromised audio performance.**

With a total weight of less than 45 kg and fitting easily into the tiniest of car boots, the D-Lite 1000 system provides a typically well thought-out, „It's a DYNACORD“ solution to a long-felt need.

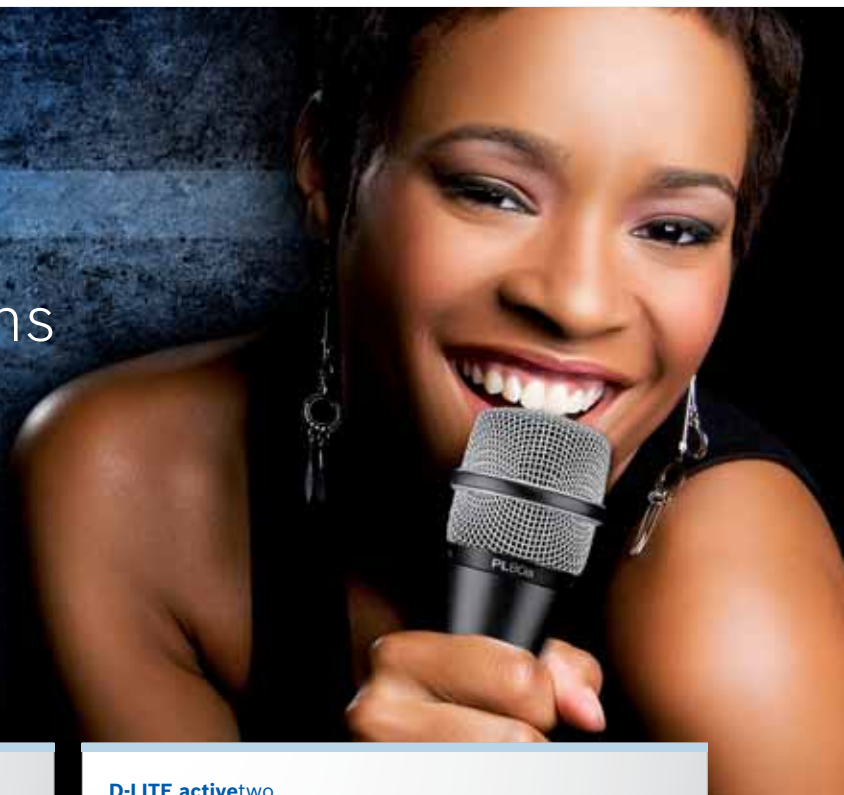
In the ultra-compact class, this system offers exemplarily high sound pressure levels, a substantial long throw capability, and broad, even coverage. At the same time, it achieves brilliantly clear reproduction with extremely low distortion and therefore a very high level of intelligibility – even in locations with notoriously problematic acoustics. A particularly convincing feature is the exceptionally powerful bass reproduction, which reaches all the way down to 43 Hz.

The integrated lightweight 800 W + 2 x 250 W digital power amplifier is perfectly tuned in every respect to the system and also permits the connection of two additional D 8 satellites (for example) and a passive Sub 112 as a bass extension.

Many and various safety circuits – such as Voice Coil Protection, DC / HF protection, audio limiter, back EMF protection and thermal protection – guarantee optimum operating security. With these characteristics, the System D-Lite 1000 is also an extremely attractive solution for many fixed installation applications

# Active three-way system combinations

Extremely compact self powered 3-way systems can be set up very easily by using the powered top cabinets together with the powered subs featuring built-in crossovers. This configuration meets even the highest demands of sound quality and intelligibility.



## D-LITE activeone Active three-way system



D-Lite activeone, featuring one mono double 12" subwoofer for smaller applications.

System components 2 x D 8A and 1 x PowerSub 212

## D-LITE activetwo Active three-way system



D-Lite activetwo, featuring two single 12" subwoofers for small to mid-sized venues.

System components 2 x D 8A and 2 x PowerSub 112

## D-LITE activethree Active three-way system



D-Lite activethree, featuring two double 12" subwoofers for mid-sized venues.

System components 2 x D 8A and 2 x PowerSub 212

## D-LITE activefour Active three-way system



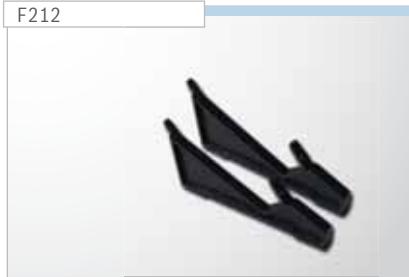
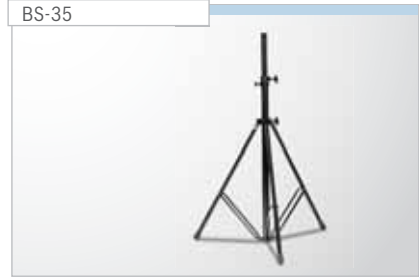
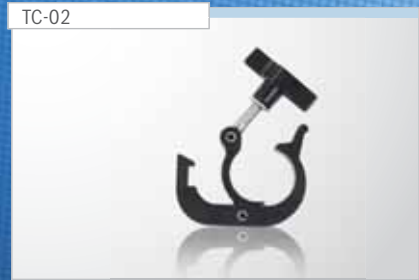
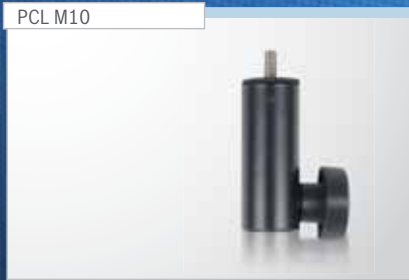
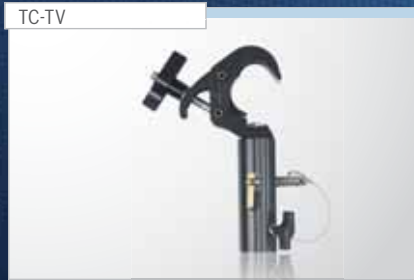
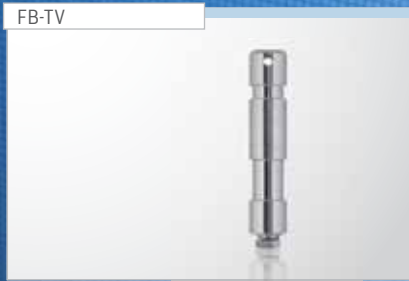
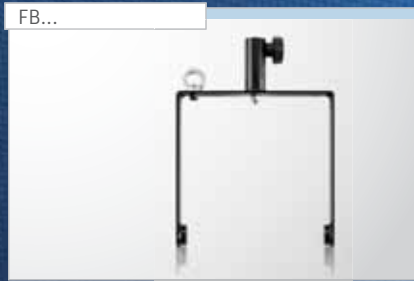
D-lite activefour, featuring two double 12" subwoofers for bigger venues.

System components 2 x D 11A and 2 x PowerSub 212



# Accessories

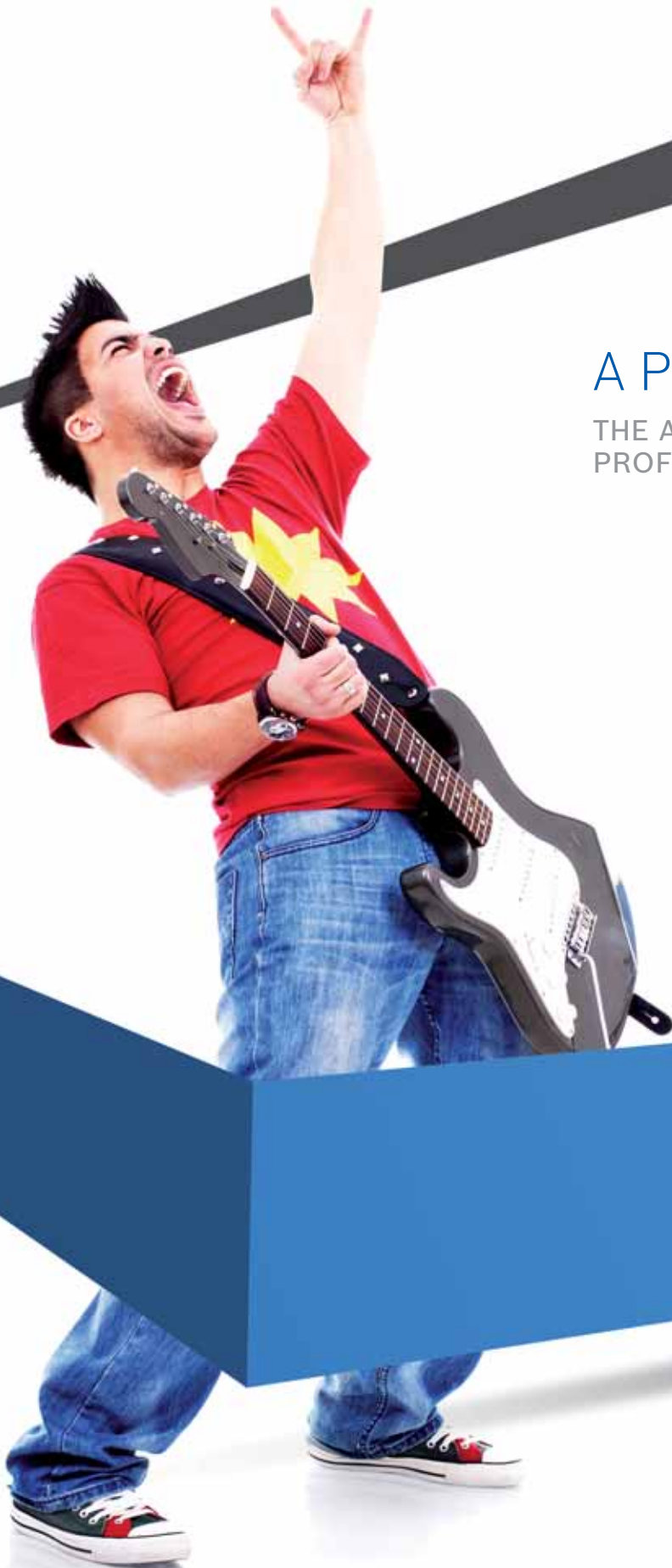
## D-Lite SERIES



## ACCESSORIES

Top	D 8 D 8W	D 8A	D 11A	D 12 D 12 W	D 12R D 12RW	D 12-3	D 15-3
<b>Color</b>	Black White	Black	Black	Black White	Black White	Black	Black
<b>Dust Cover</b> SH...	SH-D 8 F01U119025		SH-D 12 F01U118994			SH-D 15 F01U119006	
<b>F 212</b> Monitor Feet	---		F01U100802			---	
<b>MB D 8</b> UMH U-Bracket	MB D 8 UMH / F01U119020 MB D 8W UMH / F01U119034		---			---	
<b>MB 212</b> U-Mounting Bracket	---		MB 212 / F01U100804 MB 212W / F01U100828			---	
<b>MB 312</b> Horiz. Cluster Plate	---		MB 312 / F01U100805 MB 312W / F01U100829			---	
<b>MB 112</b> Eyebolt-Set M 8 **	---		F01U100803			---	
<b>** MB 112</b> must only be used together with MB 212 due to safety reasons!							
<b>MB 200 UMH</b> U-Bracket	---		F01U120157			---	
<b>MB 500 UMH</b> U-Bracket	---		---	---	---	---	F01U119008
<b>FB...</b> Flying Bracket	FB-D 8 F01U119021		---	---	---	---	FB-D15 F01U119009
<b>FB-TV</b> TV-Spigot	F01U100845		---	---	---	---	F01U100845
<b>TC-TV</b> Truss > TV-Spigot	F01U100727		---	---	---	---	F01U100727
<b>PM-TV</b> PoleMount > TV-Spigot	F01U100728		---	---	---	---	F01U100728
<b>WMK-10</b> Wall Mount Kit	WMK-10 / F01U119022 WMK-10W / F01U119032		---	---	---	---	---
<b>TMA</b> Tilt angle for UMH				TMA / F01U118977 TMA W / F01U119038			
<b>RMA</b> Rotatable Kit for UMH				RMA / F01U118976 RMA W / F01U119039			
<b>TC-02</b> Truss clamp for UMH				F01U100657			
<b>PCL-M10</b> Pole Mount	F01U100833		---	---	---	---	F01U100833
<b>Speaker Stand</b> max. 50 kg				BS-35 / F01U141046			

Sub	Sub 112	PowerSub 112	PowerSub 212	PowerSub 312
<b>Dust Cover</b> SH...	SH-SUB 112 F01U119033	SH-SUB 112 F01U119033	SH-PS 212 tba.	SH-SUB 112 F01U119033
<b>PCL 880</b> Pole Mount fix 880mm	F01U100601			
<b>VPM 1500</b> Pole Mount adjustable	F01U141047			



## A Perfect Match

THE A-LINE IS YOUR ENTRY TO  
PROFESSIONAL DYNACORD LIVE SOUND





## A-Line Family

- A 112A
- A 115A
- A 118A
- A 112
- A 115
- A 118

# A-Line

LOUDSPEAKER SYSTEMS



A 112



A 115



A 118



■ *Powered loudspeakers have become very popular for live music applications. A key reason for this is the advantage of having onboard power amplifiers and digital signal processors that are perfectly matched with speaker components. Many users of DYNACORD PowerMates would prefer the passive A-Line speakers in order to fully utilize their premium power mixers.*

*With its A-Line, DYNACORD offers a family of very competitively priced powered and passive loudspeakers designed to address a wide range of small-to-medium sound reinforcement applications.*



# A 112A | A 115A | A 118A

POWERED LOUDSPEAKERS



■ **A-Line powered includes three models: a 12-inch, two-way fullrange; a 15-inch, two-way fullrange; and a perfectly matching 18-inch subwoofer.**

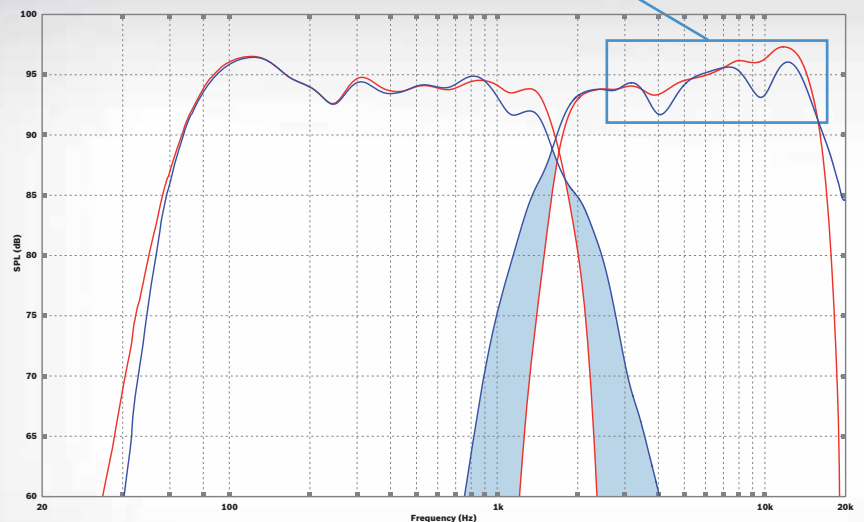
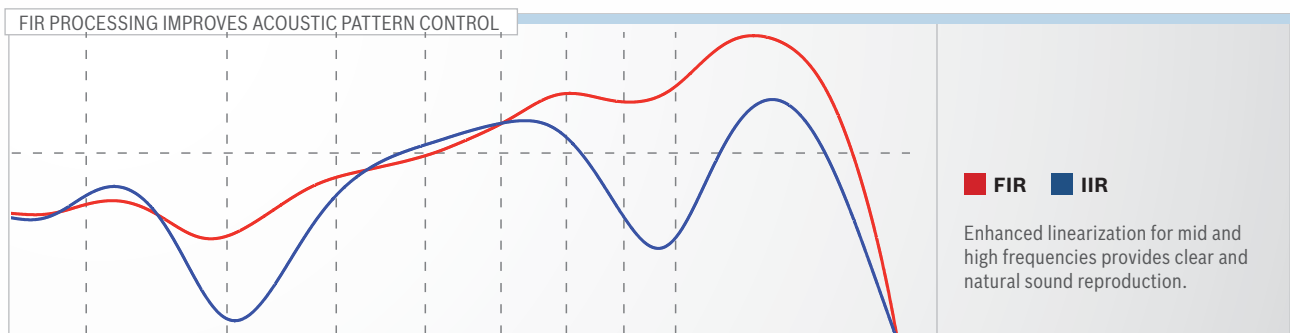
All three models feature solid 15-mm plywood enclosures that combine durability with low weight. A high-quality black paint finish and steel grille offer road-ready ruggedness and a professional appearance.

The fullrange models are equipped with either a 12-inch EVS-12K woofer (A 112A) or a 15-inch EVS-15K (A 115A), and feature a 1.5-inch titanium diaphragm compression driver radiating into a 90 x 50-degree (H x V) high-

frequency waveguide. Both the cabinets provide an asymmetrical footprint, with a 60-degree monitor angle allowing for alternative use as a powered floor monitor.

The onboard power modules of A 112A and A 115A combine lightweight Class-D dual-channel power amplifiers (biamping) with a total of 500 W (IHF-A), along with digital signal processing for crossover (24 dB/octave slope), EQ, and advanced digital speaker protection.

The linearization of transfer function in both cabinets is provided by state-of-the-art **FIR filter** technology.



Improved crossover performance with less frequency overlap reduces negative interferences.





**The control and connector panels are designed for intuitive operation and versatile connectivity.**

The two-channel mixer section offers an XLR/TRS combo connector (Line 1), stereo RCA sockets, and a level control in the Input 1 channel, and a second XLR/TRS combo connector (Line 2) which is switchable for microphone or line sensitivity in channel Input 2.

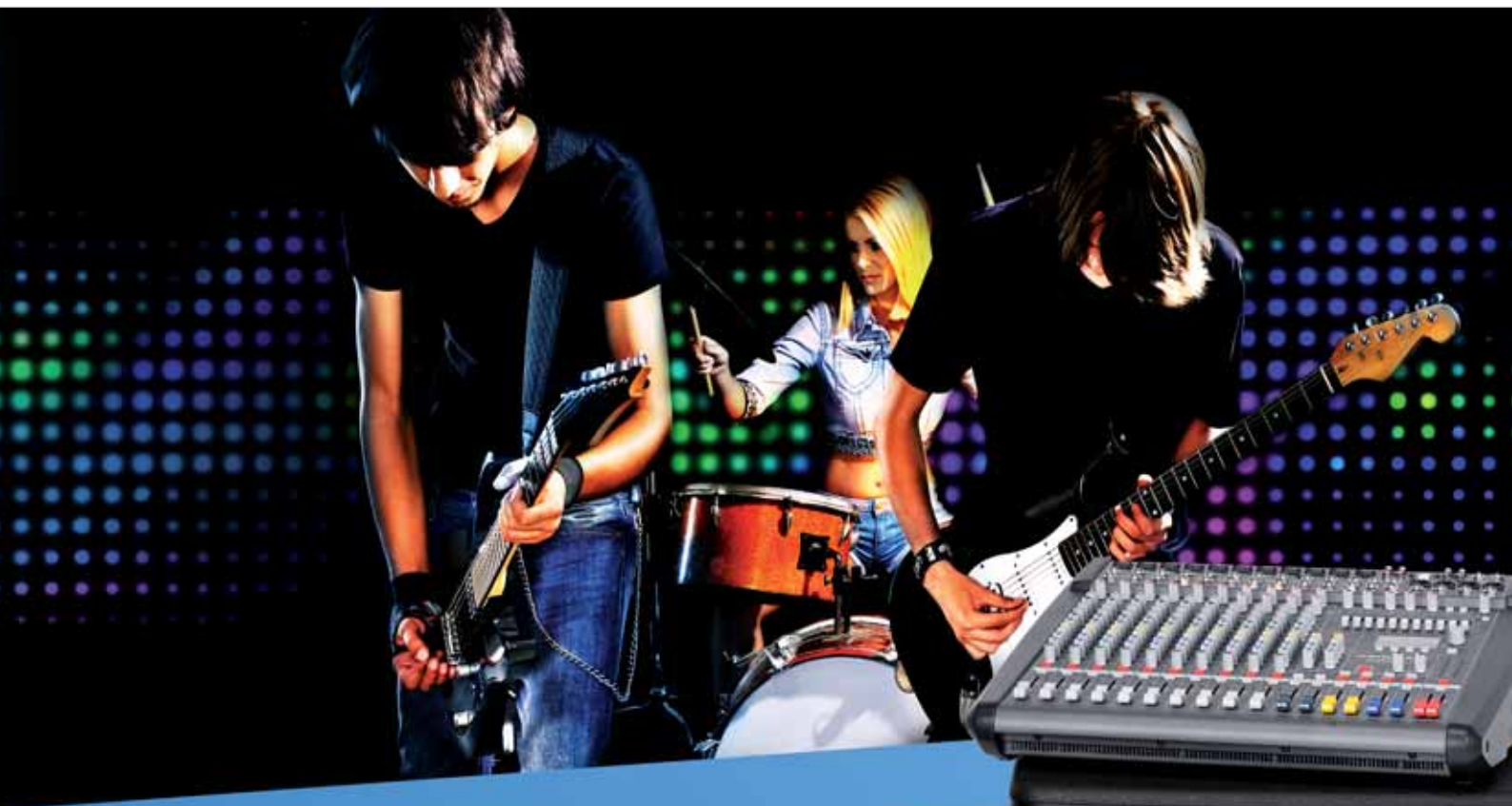
For daisy-chaining to other devices, there is an XLR link output available which can be set to feed either the Line 1 or the mix signal.

In the Master section we find the overall Volume control, along with a switch for selecting the dedicated EQ setting for either Main or Monitor operation. A second switch activates a high-pass filter when using the fullrange cabinets in combination with a powered subwoofer (A 118A).

The powered subwoofer A 118A features a similar power module with 400 W peak power [IHF-A], Master Volume control, a phase-inversion switch, an XLR/TRS combo input connector, and an XLR link output socket.

Setting up a small—yet very powerful—system turns out to be a piece of cake when combining with DYNACORD CMS mixing consoles (e.g. CMS 600-3). They are the perfect fit and offer a broad range of advanced features in concert sound quality.





## A 112 | A 115 | A 118

### PASSIVE LOUDSPEAKERS

■ **The passive versions of the A-Line family are identical to the powered versions, but do not have onboard DSP and amplification.**

Acoustically, they sound very close to the powered versions. These cabinets are ideal and very affordable options for creating systems

with powered mixers, such as the unique PowerMate<sup>3</sup> family units.

Combinations with 2 x 1000 W PowerMate<sup>3</sup> models allow for safe operation and ultimate dynamics when using the matching speaker protection feature of these powered mixers.







## Corus Evolution

- C 12.2
- C 15.2
- C 25.2
- Sub 1.15
- Sub 1.18
- Sub 2.15



# Corus Evolution

COMPACT LOUDSPEAKER SYSTEMS





**The Corus Evolution is the latest generation of a highly successful family of loudspeakers with wooden cabinets that boasts a tradition going back many years. Developed for applications in the field of live musical performance but also for fixed installation, the Corus Evolution models convince through their very high power handling, excellent acoustic performance and their especially attractive price.**

With their robust, flush-mounted, acoustic-gauze-backed, steel protective grilles, their large, user-friendly handles, and their ergonomically recessed connection panels, they feature elegant

and unobtrusive styling that has a pleasant, timeless quality. Their high-quality workmanship and production quality is typical of goods Made in Germany. All the full-range cabinets have flying points for fixed installation, whilst for the two smaller models mounting brackets are optionally available that, in combination with DYNACORD's PI-Easy accessories, permit three levels of aiming. For easier transportation, optional wheel kits are available for the two 18" subwoofers.

The full-range cabinets are equipped with woofers from the SMX series and the DH3 (ND2 in the case of the C 25.2)

high-frequency drivers from Electro-Voice that have proved themselves a thousand times. The modern crossover design provides filters of the fourth and sixth orders respectively as well as dynamic HF protective circuits. In the subwoofers, loudspeakers from the EVS series, also from Electro-Voice, are used.

The Sub 1.15 and Sub 1.18 can, thanks to their integrated low-pass filters, be operated parallel to MF / HF cabinets if desired.



## C 12.2

### FULLRANGE CABINET

■ **The C 12.2 is a compact, trapezoidal 12" / two-way full-range cabinet offering very high power handling (500W continuous / 2000W peak) and sensitivity of 97 dB 1W / 1m.**

The low frequencies are reproduced by an SMX 2120 woofer, whilst in the high frequency range, a DH3 compression driver in a 90° x 50° constant directivity horn handles everything above 1650 Hz. Flying points for eyebolts allow the cabinets to be flown vertically or horizontally. Available as an option is the DC-MBC12-UMH mounting bracket, which is compatible with the DYNACORD PI-Easy mounting system and supports up to three levels of orientation. To extend the low bass performance, a Sub 1.15 subwoofer connected in parallel is recommended. This combination is also ideal for an active two-way system together with the DSP 260 or DSP 600 controllers and power amplifiers from the SL series.





## C 15.2

### FULLRANGE CABINET

**In the C 15.2, DYNACORD is offering an extremely compact, trapezoidal 15" / two-way full-range cabinet boasting very good power handling (500W continuous / 2000W peak) and sensitivity of 100 dB 1W / 1m for applications requiring an extended low end.**

Here, an SMX 2151 woofer is used, whilst in the high frequency range, a DH3 compression driver in a 90° x 50° constant directivity horn reproduced everything above 1550 Hz. Flying points for eyebolts are

provided to permit either vertical or horizontal suspension. Also available as an option is the DC-MBC15-UMH mounting bracket, which is compatible with the DYNACORD PI-Easy mounting system and supports up to three levels of orientation. To extend the low bass performance, a Sub 1.18 subwoofer connected in parallel is recommended. This combination is also ideal for an active two-way system together with the DSP 260 or DSP 600 controllers and power amplifiers from the SL series.





# C 25.2

## FULLRANGE CABINET



■ If very high sound pressure levels are required from a compact format, the trapezoidal C 25.2 double 15" / two-way full-range cabinet is the ideal choice, with its very high power handling (1000W continuous / 4000W peak) and sensitivity of 103 dB 1W / 1m.

Boasting a maximum SPL of 139 dB, it is capable—even in full-range operation—of providing coverage for larger rooms and events. In the low frequency range, two SMX 2151 woofers are used, whilst in the high frequency range, an ND2-8 neodymium compression driver in a rotatable 60° x 40° constant directivity horn covers the frequencies above 1750 Hz. The crossover is implemented using a sixth order filter with a very steep roll-off. Flying points for eyebolts allow the cabinet to be suspended either vertically or horizontally.

As the ideal companion for a very powerful active two-way system, the double 18" subwoofer Sub 2.18 is recommended together with the DSP 260 or DSP 600 controllers and power amplifiers from the SL or LX series. Suitable presets for both controllers are available, as well as a FIR-TUNE preset for the DSP 600.





## SUB 1.15/SUB 1.18

### SUBWOOFER

■ The two subwoofers Sub 1.15 (1 x 15" EVS-15S woofer) and Sub 1.18 (1 x 18" EVS-18S woofer) are the ideal compact bass extensions for the Corus C 12.2 and C 15.2 full-range cabinets.

Thanks to their integrated low-pass filters, they can, if desired, be operated simply in parallel in Single Amp mode. Also recommended, naturally, is the combination with the controllers DSP 260 or DSP 600 and power amplifiers from the SL or LX series for the creation of active two-way systems.

The Sub 1.18 is prepared for the optionally available DC-WK-C18 wheel kit.



## Sub 2.18

### SUBWOOFER

■ **The Sub 2.18 is a double 18", high-powered subwoofer for very high sound pressure levels: sensitivity 102 dB 1W / 1m, SPLmax 138 dB.**

Boasting power handling of 1000W continuous and 4000W peak, the

Sub 2.18 can be used universally for active two-way or three-way systems.

It is above all, however, the ideal companion to the C 25.2 for the creation of an active two-way system together with the DSP 260 and DSP

600 controllers and power amplifiers from the SL or LX series. Suitable presets are available for both controllers as well as a FIR-TUNE preset for the DSP 600. The Sub 2.18 is prepared for the optionally available DC-WK-C18 wheel kit.







## VariLine

- VL 62 / VL 62W
- VL 262 / VL 262W
- VL 122
- VL 152
- VL 212
- SUB 18
- SUB 28

# VariLine

MULTIFUNCTIONAL SPEAKER LINE





**Professional sound reinforcement requires maximum performance and high sound pressure levels for a wide variety of touring and installation applications.**

Universal loudspeaker functionality is therefore especially important, making it possible to react without difficulty to changing demands. Both acoustically and mechanically, VariLine enclosures have

been designed and optimized without compromise for multifunctional applications. Innovative protective circuits guarantee maximum reliability and optimal safety for all loudspeaker components.

**Engineered and made in Germany,** VariLine loudspeakers employ only the finest components, including lightweight high-power neodymium transducers, rotatable CAD-optimized CD horns, fully-electronic

loudspeaker protective circuitry and passive true-phase crossovers that ensure linear reproduction even in critical acoustic environments.

Comprehensive mounting and rigging accessories facilitate professional handling and simple, secure installation of VariLine loudspeakers. Stylish and yet visually unobtrusive, these enclosures harmonize with the most elegant interiors.



# Components

## VariLine

CROSSOVERS



■ Throughout the VariLine series, only selected components of the highest quality are used.

These include not only the crossovers and signal processors but also DYNACORD's innovative protective circuits: the individual loudspeaker components are safeguarded from thermal overload by the all-electronic Voice Coil Tracking Protection system as well as halogen protectors. VariLine loudspeakers can therefore be driven by extremely powerful amplifiers to obtain the widest possible dynamic range without their voice coils sustaining damage – even when operating errors occur. Furthermore, any thermal overload triggers a 'soft' power reduction, free from the distracting switching noise that is the bugbear of conventional protective circuits. The 12" and 15" models offer the additional option of switching to active two-way operation.

HORNS



■ The large-format VariLine constant directivity HF horns have been optimized using advanced CAD software and can be rotated through 90° for horizontal applications.

As well as exemplarily low distortion, these horns are remarkable for the very low frequencies at which they retain their directivity. The smaller enclosures are equipped with Electro-Voice DH3 titanium domes, whilst the VL 122 and larger models feature Electro-Voice ND6 neodymium drivers with 3" voice coils and 1.4" exits. These advantageous horn / driver configurations provide crisp and powerful high-resolution HF reproduction.

CONSTRUCTION



■ VariLine enclosures are made from extremely rugged, multiply birch with a dual-component finish sufficiently resilient to withstand the roughest of handling on the road and on stage.

The front is protected by a sturdy powder-coated steel grille lined with high quality acoustic foam. The logo can be rotated through 90° and therefore looks right whether the enclosures are mounted vertically or horizontally. The 12" and 15" enclosures are asymmetric, which not only optimizes them for floor monitoring but also facilitates the creation of clusters.

LOUDSPEAKERS



■ VariLine loudspeakers are equipped with extremely low-distortion, state-of-the-art drivers that provide not only a linear frequency response but also a wide dynamic range and high power handling.

The 6", 12" and 15" transducers are armed with neodymium magnets – which, incidentally, contributes significantly to the exceptional lightness of VariLine cabinets.

INSTALLATION HARDWARE



■ A wide range of installation hardware is available for VariLine fullrange cabinets providing classic three-point eyebolt hanging, wall or ceiling bracket mounting and, even more convenient, three-level adjustable mounting.

FLYING BRACKETS



■ Flying brackets are optional accessories for precise loudspeaker aiming at the listening areas.

In installation applications, the bracket can be equipped with truss clamps for flying while an adapter enables stand mounting. A TV spigot enables easy changing from truss to stand mounting while additional adapters provide maximum flexibility for a comprehensive range of applications.

OPTIMIZED FACTORY PRESETS INCLUDING FIR-TUNE LINEARIZATION ARE AVAILABLE FOR DSP 600, P 64 AND PowerH AMPLIFIERS WITH RCM-26 UNDER IRIS-NET.



- *top quality sound reinforcement for speech and music*
- *theater front fill*
- *multimedia applications*
- *satellite and delay systems*





## VL 62 and VL 262

### TWO-WAY FULLRANGE CABINETS

■ **The models VL 62 and VL 262 are extremely compact, two-way fullrange cabinets suitable for a wide variety of mobile and installation applications.**

Their very high sensitivity (94 dB / 97 dB @ 1 W / 1 m) and power handling make them stand out in their class.

Extremely low-distortion DND 6130-16 neodymium drivers transduce the low frequencies and midrange,

while a 90° x 40° HPT94 constant directivity horn handles everything above. This is driven by Electro-Voice's brilliant and clean DH3 titanium dome and can be rotated easily through 90° when the cabinets are operated in a horizontal position.

Recessed Speakon connectors enable the VL 62 and VL 262 to be placed close to walls. Two M10 threaded inserts in the side of the VL 262 are provided for the FB VL 262 bracket, which allows the cabinet

to pivot on both the vertical and horizontal axes.

MB and MB UMH brackets can be attached to the top or bottom using the two M10 threaded inserts provided, whilst four M6 threaded inserts are provided on the back for conventional wall-mounting brackets.

A robust and hard-wearing, water-repellent cover is available as an accessory.



## VL 122, VL 152 and VL 212

### HIGH-POWER TWO-WAY CABINETS

- *top quality sound reinforcement for speech and music*
- *high powered monitoring*
- *front and side fill*
- *club systems with subwoofers*
- *delay systems*

■ **The 12" and 15" VariLine models are high-power, two-way cabinets equipped exclusively with high-quality neodymium components.**

They are also remarkably light for their class. Also notable are their very high power handling capacity, low distortion and impressive maximum SPL. Large format HF horns with Electro-Voice ND6 drivers provide balanced directivity well below the crossover frequency and clear, detailed HF reproduction. In horizontal applications – especially when used as monitors and in high-quality installations – the radiation of the midrange and higher frequencies can be optimized by rotating the horns.

The 12" and 15" models can be used in full-range mode or switched to active two-way operation. Their asymmetrical enclosure design is ideal for floor monitor use as well as for cluster arrangements.

An extensive range of mounting and flying hardware is available: see page 66 - 67.







## SUB 18 and SUB 28

### SUBWOOFER

■ **The vented SUB 18 and SUB 28 direct radiators have been designed for subwoofer use in active multi-way systems.**

The superior transient response of the classic bass reflex construction also makes them suitable for medium to large bass arrays.

The premium 700 W RMS long-excursion woofers boast extremely low THD, and the reliable, all-electronic Voice Coil Tracking Protection prevents thermal overload of the 100 mm sandwich voice coils.

For maximum dynamics, the Sub models can be driven by extremely powerful amplifiers; thermal overload triggers a virtually inaudible 'soft' power reduction.

The 18 mm multiply birch enclosures feature a rugged dual component structured finish. The woofers are protected against damage and inclement weather by a sturdy powder-coated steel grille lined with high quality acoustic foam. Wheel kits with four 100 mm factory-assembled 'Blue Wheels' are available as options.

WK 500 - FOR SUB18



WK 600 - FOR SUB 28





These are mounted on the back to provide easy and convenient transport.

The SUB 28 is switchable between 1 x 4  $\Omega$  and 2 x 8  $\Omega$  operation, in which case the signal for Subwoofer A is on pins 1+ / 1-, and that for Subwoofer B on pins 2+ / 2-, of the Speakon connectors.

When driven by DYNACORD SL, LX or PowerH series amplifiers, a single four-pole cable connected to Channel A is all that is needed to drive both woofers.





# SUB 18 and VL 122 SYSTEM



■ **A combination with a high power handling capacity in active two- or three-way operation providing suitable sound reinforcement for small to medium-sized venues such as bistros and clubs.**

FB-VL122 flying brackets make it possible to aim the satellites

precisely at the coverage area and they can be pole-mounted directly on top of the subwoofers to save space.

As drive units, high-powered amplifiers from LX series combined with the DSP 600 controller or else PowerH amplifiers with RCM-26 modules are recommended.

OPTIMIZED FACTORY PRESETS INCLUDING FIR-TUNE LINEARIZATION ARE AVAILABLE FOR DSP 600, P 64 AND PowerH AMPLIFIERS WITH RCM-26 UNDER IRIS-NET.





## SUB 28 and VL 212

### SYSTEM

■ **A combination with a high power handling capacity in active two- or three-way operation.**

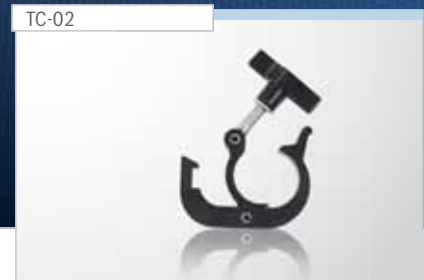
Ideally suited to use as a front-of-house PA system in medium-sized venues calling for maximum sound pressure in the low-mid frequency range. Each loudspeaker is reliably

protected against thermal overload by its own all-electronic Voice Coil Tracking Protection circuit, which makes possible the use of extremely powerful power amplifiers from DYNACORD's PowerH series, such as the H 2500 or H 5000, to obtain the widest possible dynamic range.

OPTIMIZED FACTORY PRESETS INCLUDING FIR-TUNE LINEARIZATION ARE AVAILABLE FOR DSP 600, P 64 AND PowerH AMPLIFIERS WITH RCM-26 UNDER IRIS-NET.

# Accessories

## VARILINE



## ACCESSORIES

Top	VL 62	VL 62W	VL 262	VL 122	VL 152	VL 212
<b>Color</b>	Black	White	Black	Black	Black	Black
<b>Dust Cover SH...</b>	SH-VL 62 F01U119026	SH-VL 62 F01U119026	SH-VL 262 F01U119017	SH-VL 122 F01U119018	SH-VL 152 F01U119019	SH-VL 212 F01U119028
<b>EBK M10</b>	EBK M10 F01U100849	EBK M10 F01U100849	EBK M10 F01U100849	EBK M10 F01U100849	EBK M10 F01U100849	EBK M10 F01U100849
<b>WMK-10</b> Wall Mount Ki	WMK-10 F01U119022	WMK-10W F01U119032	WMK-10 F01U119022	---	---	---
<b>MB ...</b> U-Mounting Bracket	MB 62 F01U119023	MB 62W F01U119036	---	---	---	MB-VL 262 F01U119031
<b>MB UMH</b> U-Bracket	---	---	MB 262 UMH F01U119014 MB 262W UMH F01U119037	MB 122 UMH F01U119015	MB 152 UMH F01U119016	
<b>TMA</b> Tilt angle for UMH	---	---	TMA F01U118977 TMA W F01U119038	TMA F01U118977 TMA W F01U119038	TMA F01U118977 TMA W F01U119038	---
<b>RMA</b> Rotatable Kit for UMH	---	---	RMA F01U118976 RMA W F01U119039	RMA F01U118976 RMA W F01U119039	RMA F01U118976 RMA W F01U119039	---
<b>TC-02</b> Truss clamp for UMH	TC-02 F01U100657	TC-02 F01U100657	TC-02 F01U100657	TC-02 F01U100657	TC-02 F01U100657	---
<b>FB...</b> Flying Bracket	FB-VL 62 F01U119024	FB-VL 62 F01U119024	FB-VL 262 F01U119011	FB-VL 122 F01U119012	FB-VL 152 F01U119013	FB-VL 212 F01U119030
<b>PCL M10</b> Pole Mount	PCL M10 F01U100833	PCL M10 F01U100833	PCL M10 F01U100833	PCL M10 F01U100833	PCL M10 F01U100833	PCL M10 F01U100833
<b>FB-TV</b> TV-Spigot	FB-TV F01U100845	FB-TV F01U100845	FB-TV F01U100845	FB-TV F01U100845	FB-TV F01U100845	FB-TV F01U100845
<b>TC-TV</b> Truss > TV-Spigot	TC-TV F01U100727	TC-TV F01U100727	TC-TV F01U100727	TC-TV F01U100727	TC-TV F01U100727	TC-TV F01U100727
<b>PM-TV</b> PoleMount > TV-Spigot	PM-TV F01U100728	PM-TV F01U100728	PM-TV F01U100728	PM-TV F01U100728	PM-TV F01U100728	PM-TV F01U100728





## TS 400

· TS 400

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# TS 400

## FULLRANGE VERTICAL ARRAY CABINET

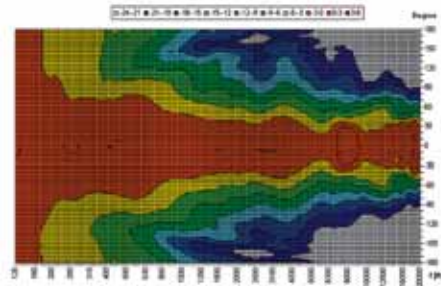
■ The TS 400 is a compact, powerful and versatile loudspeaker system for mobile and installation applications. It can be used full range, or in active 2-way systems for applications requiring subwoofers. It will typically perform in active 2-way systems but can also be used as a fullrange cabinet. DYNACORD PSD 215 or PSD 218 powered subwoofers ideally allow for such active 2-way system combinations (see page 78 - 87).

Vertical pattern control is a requirement for highest sound quality and speech intelligibility, especially in difficult acoustic spaces. The TS 400 was designed to provide a very even and smooth coverage over a very wide bandwidth by using spaced and filtered woofers as array elements.

The 2.5 way design places elements at the ends of the column for maximum distance to lower the effective controlled frequency.

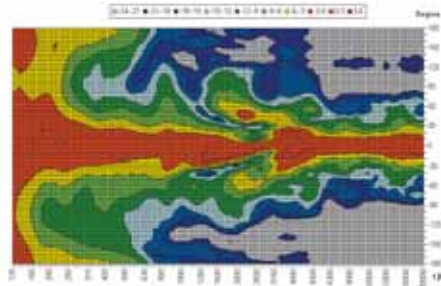


Horizontal isobar curves



Horizontal isobar curves of the TS400 with a nominal dispersion angle of 90°

Vertical isobar curves



Vertical isobar curves of the TS400 with a nominal dispersion angle of 40°. The cleverly conceived 2 1/2-way system allows the very narrow dispersion angle to be maintained over a very wide frequency range down to 300 Hz



The MF-elements and the HF-element are placed in the middle of the cabinet for a smooth transition of the mids to the HF and to extend the coverage control. Each group of elements has its own bandpass filter to optimize the array's performance to provide good attenuation at 90° off-axis and evenly cover the audience area front to rear with half the rate of attenuation of a non "steered" cluster.

The TS 400 is equipped with 4 x 6,5" DND 6130-16 Neodymium woofers and one Electro-Voice DH3 compression driver coupled with a 90° by 40° constant directivity horn providing very high SPL and excellent coverage. Power handling is 600W RMS / 2.400W peak.

Separate protection circuits for the LF-, MF- and HF-elements are used to protect all transducers at the highest power levels. The TS 400 enclosure is aluminum for a very robust but lightweight design with a look that fits any environment.

TA-TS400 tilt adaptor can be used to precisely aim the system for optimum audience coverage.

The optional mounting bracket WMK-25 allows for wall-mount applications with up to 30° of tilt.

FB-TS400 Flying Kit for TS400 allows to fly TS400 it can be adjusted to any aiming angle.

The optional carrying bag CB-TS400 is the ideal accessory for easy, protected transportation of the TS 400.









## PSD/E Powered Subwoofers

- PSD 215
- PSD 218
- PSE 215
- PSE 218



# PSD/E

POWERED SUBWOOFERS

PSD 215



PSD 218



PSE 215



PSE 218



■ *The PSD 215 (1 x 15") and PSD 218 (1 x 18") are high-performance powered subwoofers designed to simplify creating active 2-way systems.*

*They use an integrated 2-channel digital power amplifier with internal 24-bit DSP controller to optimize the sound quality and protect the subwoofer and full range system used with it.*



PSD 215 and PSD 218  
POWERED SUBWOOFERS





**Both models are vented direct-radiators exhibiting outstanding transient response and capable of delivering very high sound pressure levels.**

The enclosures are made from well braced 18 mm Baltic birch plywood with a protective coating capable of withstanding the rigors of use on the road. Recessed handles are ergonomically shaped to ensure easy transportation and setting-up – tasks further facilitated by the tour grade castors.

A recessed stand adaptor with an M20 thread is provided on the top of the enclosure for the pole-mounting of full-range systems. The horizontal format of the enclosure allows placement beneath the stage or provides an exceptionally stable base for pole-mount speakers.

The PSD 215 is equipped with a 15" Electro-Voice DVX3159 woofer specially developed for use in compact subwoofers it sets a new standard for minimum size and

maximum acoustic output. While maintaining impressive deep bass high sound pressure levels. The PSD 218 with an 18" Electro-Voice DVX3180 long-excursion woofer delivers the performance demanded of 18" subwoofers in professional concert sound applications. It produces extended low frequency response from a compact enclosure with plenty of punch.



*Examples showing PSD subwoofers with full-range D-Lite, Corus and VariLine and the new TS 400 array system are in the Application Guide p.129.*

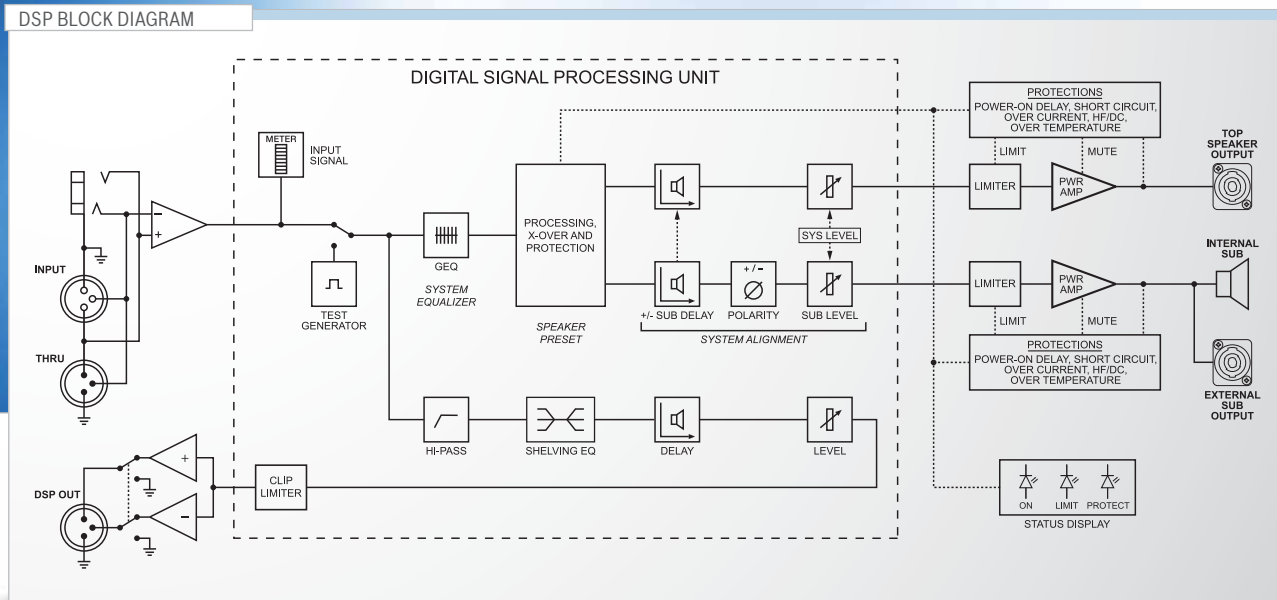


■ Both models use a highly efficient Class D technology amplifier a microprocessor-controlled switched-mode power supply to deliver 2 x 1,000 watts RMS into 4 ohms for highest quality audio performance.

All DYNACORD power amplifiers are capable of withstanding the most extreme rigors of touring, they are protected against overheating, overload, short circuit,

back EMF and open-circuit operation as well as HF or DC at the output. Thermal stability is assured by an extremely quiet continuously variable speed fan. The units are also equipped with intelligent thermal limiters that track voice coil operating temperature that allow maximum output without failure. Being any noticeable reduction in loudness. PROTECT and LIMIT LEDs indicate the current operating status of the power amplifiers.





The integrated 24-bit digital controller with internal 48-bit double-precision resolution exhibits a 1-into-3 topology: SUB channel, TOP channel and an additional DSP Out.

■ The stored factory presets are optimized for combinations with TS 400, Corus 12" and 15", CXM 15, D-Lite 12-3 and 15-3, as well as VariLine full-range cabinets and generic presets for other combinations and special programs for cardioid and bass arrays are also provided.

The system-alignment-delay, the polarity and naturally also the level can be edited by the user. The input EQ, the settings of which can be saved, allows adjustments to be made for the acoustics of the room. The DSP Out also offers an adjustable delay, low-cut and shelving equalizer as well as a level control. It is therefore ideally adapted, among other things, to the use of an active delay box. Signal generators with pink noise or spike pulses are integrated to facilitate tuning the PA and the setting of delay times. In all, 25 program locations are provided (20 factory presets + 5 user memories). All three channels are equipped with state-of-the-art look-ahead peak anticipation limiters, the SUB channel also has a temp limiter.



## PSE 215 and PSE 218

NON POWERED SUBWOOFERS



■ The PSE 215 and PSE 218 are the non powered versions of the PSD subs, share the same dimensions, transducer configurations, and the acoustic characteristics allowing them to be used with PSD 215 and PSD 218 without additional amplifiers when greater SPL is required.

The PSE 215 and 218 may also be used as a subwoofer in any other active system combination.





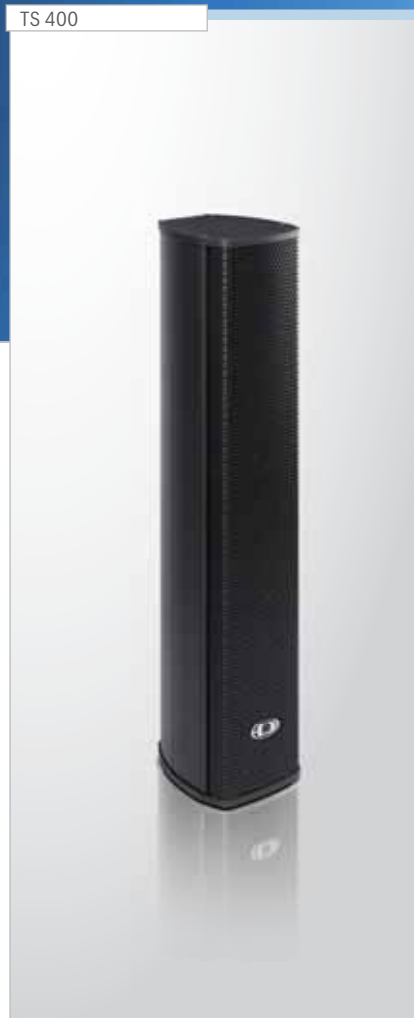


## Vertical Array Systems

- TS 400
- PSD 215
- PSD 218
- PSE 215
- PSE 218

# System Components

## VERTICAL ARRAY SYSTEMS





■ **Many high performance systems can be created using the PSD 215 and PSD 218, the passive extension subs PSE 215 and PSE 218 and the TS 400 array cabinets.**

*These plug & play solutions meet requirements for a large number of mobile applications and fixed installations with high sound pressure levels, outstanding audio quality, wide coverage and exemplary intelligibility.*

*In any configuration the TA-TS400 tilt adapter is recommended to facilitate precision aiming of the enclosures at the section of the audience to be covered.*



Amazing Body  
Mighty Sound



VA 215 SYSTEM



System components:

- 2 x TS 400
- 2 x PSD 215

VA 218 SYSTEM



System components:

- 2 x TS 400
- 2 x PSD 218

VA 415 SYSTEM



System components:

- 2 x TS 400
- 2 x PSD 215
- 2 x PSE 215

VA 418 SYSTEM



System components:

- 2 x TS 400
- 2 x PSD 218
- 2 x PSE 218







## CXM 15

- CXM 15 / CXM 15W
- AM 12

# CXM 15 / CXM 15W

COAXIAL MONITOR SPEAKER CABINET



- Coaxial Monitor 15" / 1.4" 2-Way
- 102 dB SPL / 1 W / 1m
- Max. 135 dB SPL / 1 m
- Light Weight 19 kg
- Switchable to Biamp Mode
- FIR and IIR Presets available

OPTIMIZED FACTORY PRESETS INCLUDING FIR-TUNE LINEARIZATION ARE AVAILABLE FOR DSP 600, P 64 AND PowerH AMPLIFIERS WITH RCM-26 UNDER IRIS-NET.



■ **The DYNACORD CXM 15 is a lightweight wedge for professional monitoring applications. The DYNACORD DCX15450 two-way 15" / 1.4" transducer uses a coaxially mounted HF unit and can be used in passive or bi-amped operating mode.**

The acoustic crossover frequency between the 15" low-frequency transducer and the 1.4" mid-high compression driver is at 1.2 kHz. The slope of the built-in passive crossover network is 12 dB / octave. Extremely precise vocal definition is assured by the comparatively low crossover frequency and the coaxial transducer design. Power amplifiers are connected to the CXM 15 via Speakon NL4MPR

connectors. The pin assignment in passive mode is 1+ / 1-. Switching from passive mode to bi-amped mode is performed by operation of a slider switch. In bi-amping mode, pins 1+ / 1- are connected to the 15" low frequency section of the CXM 15 and pins 2+ / 2- to the 1.4" mid-high-frequency section.

The CXM 15 is equipped with three Speakon sockets switched in parallel. This simplifies the daisy-chaining of multiple wedges and pole-mounted CXM 15 cabinets. The 1.4" MF/HF compression driver is safeguarded against thermal overload by the fully-electronic Voice Coil Tracking Protection system, which exhibits „soft“ switching characteristics, sparing audiences the annoying

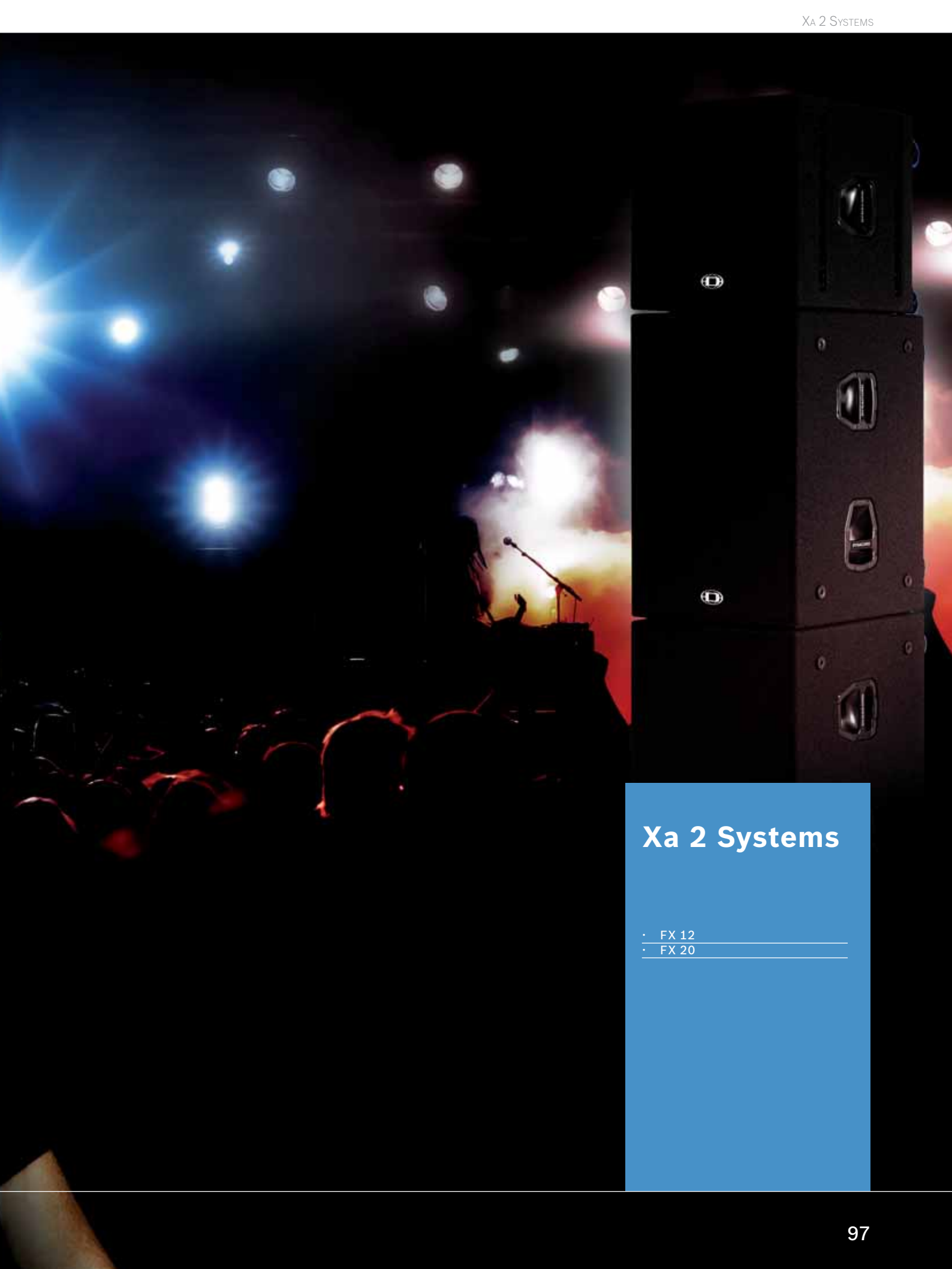
clicks and pops that are the bugbear of conventional solutions. Both FIR and IIR presets are available for a wide variety of operating modes. The CXM 15 is constructed from birch plywood and therefore extremely resistant to abuse on the road. All cabinet connections are slotted and glued. The surface is protected by a hard-wearing textured finish.

A powder-coated steel grille backed by acoustic foam protects the loudspeaker components from accidental damage. A recessed adapter is provided to facilitate pole-mounting. Handles have been integrated into both sides of the CXM 15.

A version of the CXM 15 in white is also available: the CXM 15W.







## Xa 2 Systems

- FX 12
- FX 20

# Xa 2 Systems

## LOUDSPEAKER SYSTEMS

- Top 40 indoor / outdoor events
- high-powered mobile DJ events
- high quality corporate functions
- powerful speech reinforcement
- multimedia events
- theater applications
- rental
- fixed installation



**In a world of excess and mass production, quality, functionality and design remain decisive factors. We at DYNACORD develop and manufacture first-class products – „Made in Germany“ – that not only supply detailed, optimized solutions to real problems encountered in day-to-day practice but are a joy to use, year after year.**

In fact, achieving the highest possible quality levels and providing full and lasting satisfaction to our customers are our abiding and paramount objectives: obligations that admit of no exception. Complete audio systems with plug & play functionality have for many years been an indispensable part of the DYNACORD sound reinforcement range. The Xa 2 system

set new standards in terms of audio performance, reliability and value for money. Where the aim is to achieve the highest on-axis sound pressure levels possible, fully horn-loaded systems remain the first choice. Typical Top 40 events, city open-air events and mobile DJ events in which areas of up to 1,000 square meters have to be covered with throws of up to 40 meters – these are ideal applications for the Xa 2 systems from DYNACORD. High-quality neodymium components, combined with Constant Q horns and patented Planar Waveguide bass horns deliver maximum volume levels combined with the highest possible audio quality. Active two-way power amplifiers using Class H technology with switched-mode power supplies and audio processors as well as all

the requisite protective circuits are capable of driving the widest variety of system configurations with absolute reliability. Thanks to the VCTP protective circuits in the cabinets – the personal bodyguards of the loudspeakers – the maximum dynamic range is achieved along with the highest level of reliability.

Light and easy to transport, DYNACORD complete systems can be set up extremely quickly thanks in part to their clear and intuitive system cabling. These are advantages of real practical importance. So, too, are the time saved and peace of mind afforded by DYNACORD's extensive range of TÜV-certified accessories, such as the FG 600 Flying Grid (see Cobra), rigging ropes and wedges that satisfy even the most





OPTIMIZED FACTORY PRESETS INCLUDING FIR-TUNE LINEARIZATION ARE AVAILABLE FOR DSP 600, P 64 AND PowerH AMPLIFIERS WITH RCM-26 UNDER IRIS-NET.

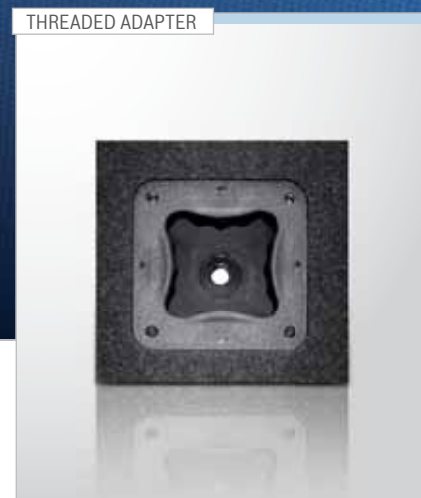
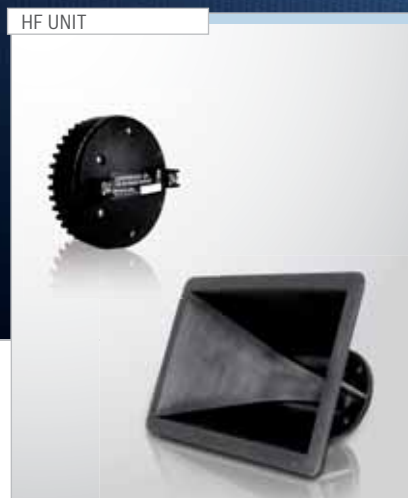
problematic and complex rigging requirements simply and safely. To adapt to a multitude of very different sound reinforcement tasks and venue acoustics of all descriptions, the requisite Xa 2 components can be configured swiftly and simply without any need for complex

calculations, controller adjustments or programming of limiters. If at an open-air event extreme sound pressure levels are required in the sub-bass, one sub per side can be added. If the brass band playing in a marquee needs extremely broad coverage and fewer subs, a single

subwoofer but two angled tops per side should fit the bill. And if a Top 40 band suddenly finds itself with an audience 4,000 strong, the same system amp is also capable of driving three subs plus two tops as well as additional front- or side-fills without any difficulty.

# Components

## XA 2 SYSTEM



■ If you wish to use the Xa 2 top, the FX 12, as an individual cabinet (e.g. to provide high-quality sound reinforcement for the spoken word) driven by a power amplifier with normal pin assignments, the connector panel offers you the option of switching from „System“ (Pin 2+ / 2-) to „Normal“ (Pin 1+ / 1-) and in that way revert to a standard pin configuration.

■ The CDH 8040-14 80°x 40° Constant-Q HF horn with its ND 6-8 neodymium driver is responsible for transducing frequencies above 1 kHz and is mounted coaxially in the Conical Waveguide midrange horn.

■ Any additional full-range cabinets or smaller tops that may be required as front- or side-fills can be mounted securely on top of the FX 20 to save space and also aimed using the PCL 800 or VPM 1500 Threaded poles, which are available as accessories.

SUB UNIT



■ The Planar Waveguide Basshorn FX 20 is armed with an Electro-Voice heavy-duty EVX 180 B 18" woofer.

SPECIAL ACCESSORIES



■ With the FG 600 Flying Grid, which is available as an accessory, the FX 12 can be flown safely and swiftly from a truss or attached to a genie (see Cobra). With the SE 600 Rigging Strap Extension and a webbing strap, an entire wing comprising multiple tops can be aimed swiftly and accurately.

FLYING RAILS...



■ The four flying tracks that are standard features of the FX 12 tops, in combination with the CSST Flying Wires available as accessories, make it easy to suspend the cabinets safely from trusses. Various detents are provided, so that just the right angle for each cabinet can be obtained. Further cabinets can be connected using CSSM Flying Wires equipped with double studs. The backs of both the FX 12 and the FX 20 boast four robust casters, whilst the tops are furnished with two, and the subwoofers with six, handles for easier transportation and to facilitate the safe stacking of the cabinets.



# FX 12

## 2-WAY HI-POWER TOP



■ **The FX 12 is a fully horn-loaded and coaxial two-way, high-power top covering a bandwidth of 100 Hz to 19 kHz with a maximum sound pressure level of 134 dB / 1m.**

The frequency range from 1 kHz upwards is transduced by a neodymium ND 6-8 driver with a 3" voice coil and a CDH 8040-14 Constant-Q horn, whilst the midrange from 100 Hz to 1 kHz is the responsibility of a neodymium ND 12A driver with a large-format conical horn. Extremely low distortion and minimal comb-filter effects whether stacked or flown are among the decisive advantages of conical horns. The fully electronic Voice Coil Tracking Protection circuitry supervises the operating states of the individual loudspeakers on a permanent basis, intervening only in the case of overload by gently

reducing the power to the speakers (,soft-switching') until a safe level is reached. The result is the widest possible dynamic range combined with the highest level of operating security.

The cabinet is made from multiply poplar plywood covered by heavy-duty needle-felt carpeting. The front is securely protected by a powder-coated metal grille backed by acoustic foam. Handles at the side and four large casters on the rear facilitate handling.

Integrated flying tracks and rigging strap attachment points are standard features. The use of four-pole Speakon cables with system pin assignments eliminates the risk of accidental wiring errors when connecting the Xa 4000 system power amplifier or looping the signal through to an FX 20 subwoofer.



## FX 20

### PLANAR WAVEGUIDE SUB

■ **To generate the maximum possible sound pressure, the FX 20 subwoofer features a Planar Waveguide bass horn and a high-power EVX 180B 18" woofer.**

It covers a bandwidth from 30 Hz to 150 Hz with a maximum sound pressure level of 132 dB / 1 m. Two of these Planar Waveguide subwoofers deliver up to 138 dB / 1 m per side, creating an extremely dry and deep bass foundation for Xa 2 systems. Like the top, the 18" woofer is securely protected

against thermal overload by the Voice Coil Tracking Protection system, and even extremely high power peaks are transduced accurately and powerfully without compromising the dynamic range. The cabinet is made from multiply poplar plywood 15 mm thick covered by extremely hard-wearing needle-felt carpeting. Two FX 20 subwoofers stacked one on top of the other reach a height of 180 cm, creating the ideal plinth for an, overhead' stack of FX 12 tops. Again, the use of four-pole Speakon

cables obviates the risk of wiring errors when connecting up the system. The Sub signal supplied by the system power amplifier is on Pin 1+ / 1-, and the midrange / high frequency signal on pin 2+ / 2- is looped through to the tops.

Four large rubber feet on the side and the same number on the bottom provide for safe stacking in a variety of configurations. No fewer than six handles and four heavy-duty castors on the rear facilitate safe transportation.

#### SYSTEM AMP

##### XA 4000

*The Xa 4000 system amp is a two-way (Sub-Top) power amplifier that can either be positioned laterally – for shorter cable runs to the cabinets – or centrally in the rack. Only two rack units in height and weighing a mere 8.25 kg, this Class H power amplifier is equipped with a switch-mode power supply of the latest generation. It outputs 1,100 W in the Sub and 900 W in the Top channel – in each case into 4 Ω. Up to three tops and three sub-*

*woofers, however, can be driven reliably and economically by a single amp. All the requisite signal processing including the equalization, LPN filter, low-cut filter and active crossover, with its crossover frequency of 140 Hz with 18 dB / octave in a modified Butterworth structure, is on board. From the front panel, the level of the Sub and Top channels can be set individually to allow optimization of the system to the geometry and acoustics of the room.*









## Cobra Systems

- Cobra-Top
- Cobra-Sub
- Cobra-4 Top
- Cobra-4 Far
- Cobra-PWH
- PWH 28
- Cobra-2 Systems
- Cobra-4 Systems



## System Components

### COBRA COMPACT LINE-ARRAY SYSTEM

**In the events sound reinforcement business, among rental companies and in professional concert sound applications, two quite different loudspeaker concepts have secured their own niches: horn-loaded systems, which are notable for their high degree of efficiency, and line-array systems, which are**

**notable for their precisely defined coverage patterns.**

In the rock 'n' roll business in particular, but more generally in any sound reinforcement context in which the emphasis is primarily upon obtaining very high sound pressure levels, horn-loaded systems con-

tinue to be the 'weapons of choice'. When multiple mid-high cabinets are used, however, it is physically impossible to eliminate altogether the comb filter effects that result from the less than optimal addition of the sound waves radiating from each cabinet. In more demanding concert sound applications, therefore, in

COBRA-4 TOP



COBRA-PWH



PWH 28



which far more is expected in terms of sound quality, line arrays have established for themselves a secure position in the market. Thanks to the extremely wide horizontal radiation pattern of line arrays, combined with their shallow and precisely defined vertical focus, the unwanted projection of sound waves onto ceilings and floors can be avoided, and, with it, the interference their reflection from such surfaces would otherwise cause. Conventional line arrays on the market, however, are mostly conceived exclusively as large-scale, ‚flying‘ sound reinforcement systems, and despite their advantages in terms of quality cannot always be

used for medium-sized events without quite considerable expense. In the Cobra-2 and Cobra-4 compact line-array systems, DYNACORD is offering a solution optimized in practice even for those applications that cannot economically be served by conventional, large-scale line arrays. The compact and easy to handle DYNACORD Cobra systems in ‚flown‘ but also in ‚stacked‘ configurations also make line-array performance available for the vast majority of those frequently encountered ‚bread and butter‘ events that take place typically in town halls, marquees or in cities in the open air. Reliability and operational security

at the highest level are guaranteed with the Cobra systems, to which the Voice Coil Tracking Protection (VCTP) to be found in each Cobra cabinet, serving as the personal bodyguard of each loudspeaker chassis, makes a valuable contribution. The fully-electronic VCPT safety circuit monitors on a permanent basis the thermal operating state of the individual loudspeakers and ensures, in the event only of overload, that the power driving it is „gently“ reduced until a safe value is reached. The result is the widest possible dynamic range combined with the maximum possible degree of operating security.



AS A RESULT OF THE HIGH SOUND PRESSURE LEVELS THEY GENERATE, THEIR OUTSTANDING COVERAGE AND THEIR SCALABILITY, COBRA-2 AND COBRA-4 SYSTEMS CAN BE USED IN A WIDE VARIETY OF CONTEXTS...

OPEN AIR FESTIVAL



CITY FESTIVAL



CITY OPEN AIR EVENT



MEGA DISCO



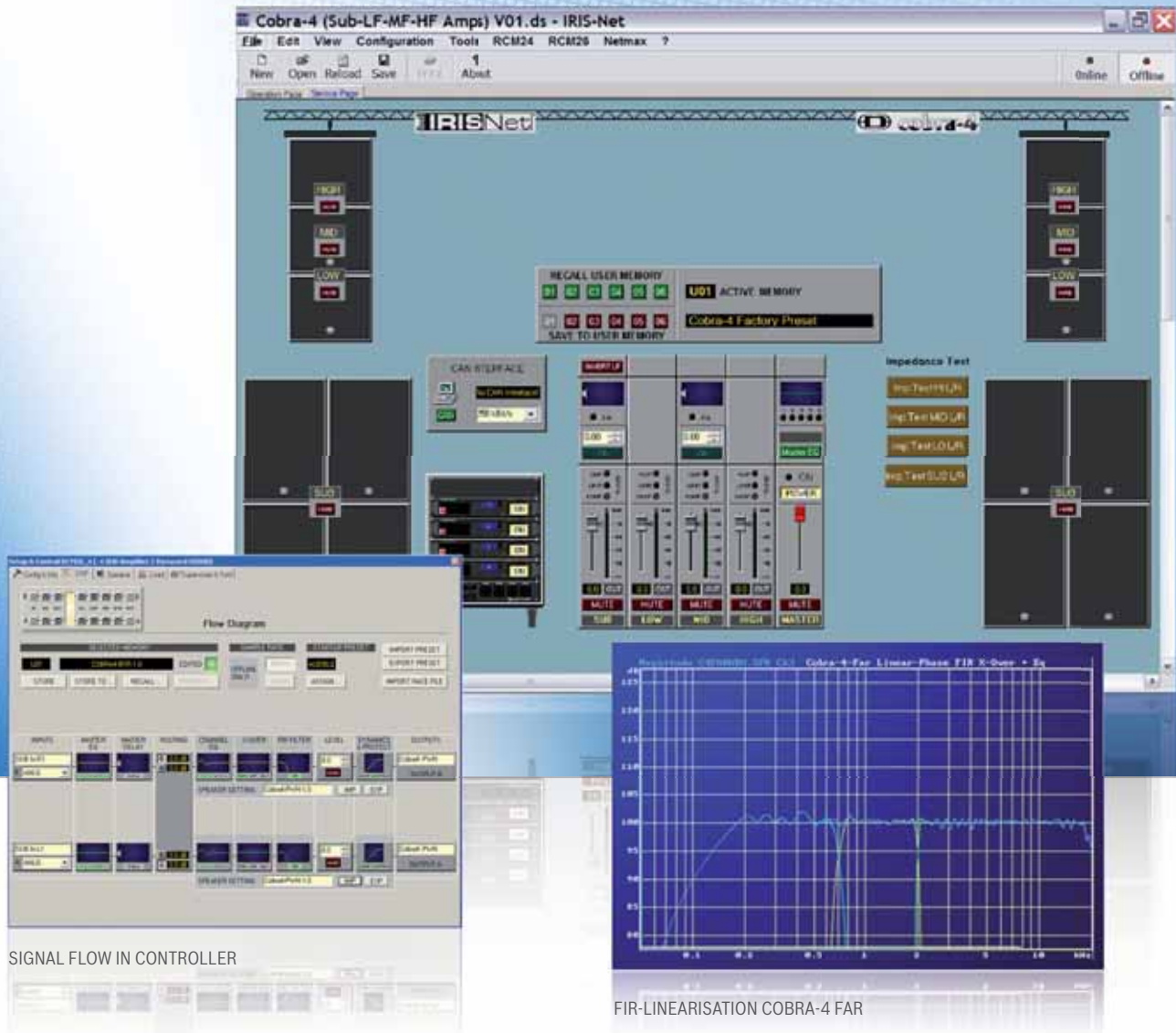
LARGE HIP-HOP OPEN AIR



GALA EVENT



IRIS-NET



## FIR Tune System Drives

FOR COMPACT-LINE-ARRAY SYSTEMS

■ For the various systems, specific preconfigured system drives are available, which in their maximum configuration with PowerH power amplifiers or DSP 600 or a P 64 matrix under IRIS-Net include even remote supervision and control, and DSP presets with FIR filter linearization.

To simplify setting up the system, IRIS-Net contains standard project files. These project files make tuning Cobra systems swift and intuitive, since they already contain all the crossover and FIR equalization functions needed – though these can, if desired, also be edited by the user. The result

of the FIR equalization is absolutely linear frequency and phase response throughout the system. This provides the ideal starting point from which the FOH engineer can proceed at once to the task of tuning the system to the acoustics of the venue – whether in- or out-of-doors.





#### **COBRA-TOP**

The flyable passive three-way FULL-RANGE / MID-HIGH component in the Cobra-2 system. Armed with a 15" Electro-Voice EVX155 speaker for the low frequency range, a coaxial midrange line-array composed of four C8 conical midrange drivers, and a DH 2T titanium driver with a CD horn for the high frequency range.

#### **COBRA-4 TOP**

The flyable active three-way MID-HIGH component in the Cobra-4 system. Armed with a 15" Electro-Voice EVX 155 speaker for the low frequency range, a coaxial midrange line-array composed of four C 8 conical midrange drivers and a DH 2T radiating into a CD horn for the high frequency range.







### **COBRA-SUB**

Flyable subwoofer with a bass-reflex design armed with an Electro-Voice 18" EVX 180 B driver. With grooves to enhance stacking stability and four ANCRA flying tracks for flown sub-arrays included in the delivery.



#### **COBRA-4 FAR**

The flyable active three-way far-field MID-HIGH component in the Cobra-4 system. Identically equipped in the low and midrange to the Cobra-4 top but featuring a 5° vertical high frequency line array, composed of three Electro-Voice DH 2T titanium drivers with an HF waveguide horn.

#### **PWH 28**

1,400 W planar-waveguide-horn-loaded, high-power sub-woofer equipped with 2 x 18" LFS 18700 transducers for very high sound pressure levels and long throws in Cobra-4 systems.



**COBRA-PWH**

A planar waveguide horn subwoofer armed with an Electro-Voice 18" EVX 180 B driver for bass reproduction in the Cobra-2 and Cobra-4 systems that is particularly powerful and carries especially far.



02

04

06



■ The FG 600 Flying Grid is suitable for all the cabinets in the Cobra (and FX) series that are equipped with airline profiles for rigging.

The complete flight system consists of the FG 600 Flying Grid and the SE-600 Strap Extension. Each of these accessory items is supplied with undetachable logging pins making assembly possible without the use of tools. The maximum load with a safety factor of 12 is 460 kg. With large loudspeaker constellations it is sometimes necessary to brace the array from behind. With the SE-600 Strap Extension, which can be inserted at the rear and secured with spherical locking pins, it is possible to align the entire wing.

# Rigging Accessories

- 01** TC-04 - Truss Clamp, 2", M12 Ring Nut
- 02** FG 600 - Flying Grid, TÜV zertifiziert
- 03** SE 600 - Strap Extension für FG 600
- 04** CSSG - Cobra System Strap (Grid > Cabinet)
- 05** CSST - Rigging Strap (Truss > Cabinet) (ohne Abb.)
- 06** CSSM - Rigging Strap (Cabinet > Cabinet)
- 07** CSW 25 - Wedge Set (2 x Keil 2,5°)
- 08** WS-04 - Webbing Strap 4 m (1-3 Cabinets)
- 09** WS-08 - Webbing Strap 8 m (4-8 Cabinets)

01



03



08



09



07



# System Racks







ICP-88



ICP-48



ICP-44



CP-48



AC 232



■ Factory-assembled System Racks are available with DSP controller, power amplifiers and an AF panel as well as an AC panel mounted at the rear with a 32 A power supply connector.

Naturally the racks can be configured freely to suit the application or the requirements of the customer – typically through the inclusion of LX or PowerH power amplifiers (optionally with RCM-26 DSP modules), DSP 260, DSP 600 or P 64 controllers, and any of a variety of different connector panels.



## Cobra-2

### COMPACT LINE-ARRAY ACTIVE 2-WAY SYSTEM

■ **The Cobra-2 system is designed to provide high-quality sound reinforcement for events in small to medium-sized marquees or halls covering distances of up to 40 meters and areas up to 1,000 square meters.**

The system produces a maximum sound pressure level of 137 dB L and 137 dB R in the mid / high frequency range and up to 141 dB in the bass. In its basic configuration, the Cobra-2 system comprises four Cobra-Top mid / high cabinets, four Cobra-Sub subwoofers, a ready-wired and pre-programmed system amp rack and the requisite 4-pin loudspeaker system cables along with a set of wedges (two 2.5° wedges that can be used either side) that make it possible to aim the Cobra-Top cabinet to suit the

area to be covered. The system amp racks are easily capable of driving up to six Cobra-Top and/ or six Cobra-Sub cabinets. If it is desired to expand the system, the amp rack is capable of accommodating additional power amplifiers (bass extension, front- / side-fills or monitors) as well as supplying them with the requisite power via the AC connector panel.

The maximum Cobra-2 configuration that makes sense comprises two Cobra-2 systems per side (four Cobra-Tops and four to six Cobra-Subs per side). Since, however, doubling the number of stacked or flown Cobra-Top cabinets results in a halving of the vertical coverage angle, particular attention must be paid in such cases to the aiming of the cabinets in the wing

or stack. A single Cobra-Top has a (horizontal x vertical) coverage pattern of 120° x 30°; this is reduced to 120° x 15° if a second, and to 120° x 7.5° if a third, Cobra-Top is added to the stack. When ground-stacked, the Cobra-Top cabinets can be aimed with precision at the area to be covered through the use of the 2.5° wedges that are supplied as standard. If added pressure or projection is needed in the bass, whether due to the style of music or to the acoustics of the venue, Cobra-2 systems can also be armed with Cobra-PWH bass horns.

With two PWH cabinets (or three Cobra-Subs) superposed, you obtain a plinth the ideal height (180 cm) for ground-stacking the Cobra-Top cabinets on.



OPTIMIZED FACTORY PRESETS INCLUDING FIR-TUNE LINEARIZATION ARE AVAILABLE FOR DSP 600, P 64 AND PowerH AMPLIFIERS WITH RCM-26 UNDER IRIS-NET



# Cobra-4

## COMPACT LINE-ARRAY ACTIVE 4-WAY SYSTEM

**The active 4-way Cobra-4 System in its standard configuration is designed for throws of up to 80 meters in medium-sized marquees, halls and open-air venues.**

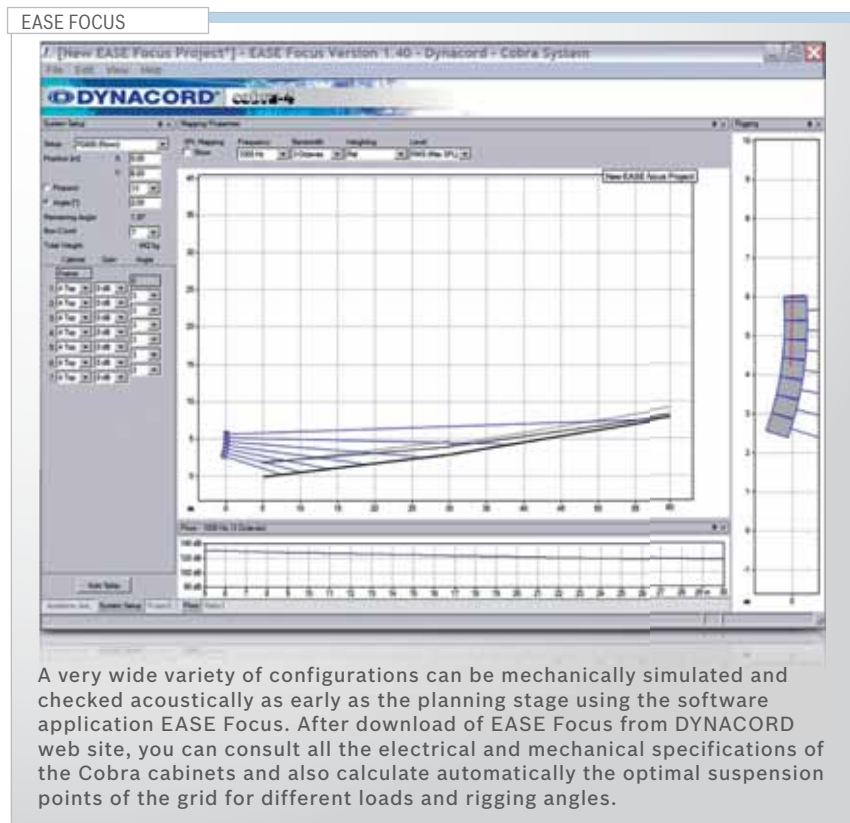
It is capable of generating at a FOH position 30 meters distant a sound pressure level of 110 dB in the mid-high frequency range and 120 dB in the bass – exactly what the typical Top 40 band requires. Through the use of two Cobra-4 Tops and one Cobra-4 Far, optimum line-array performance can be obtained even from a typical

stacked configuration without time-consuming adjustments. For large distances, the top position in the stack is reserved for a Cobra-4 Far unit, which has a coverage pattern of 90° (horizontally) and 5° (vertically) in the high frequency range.

For the low frequency and midrange, the same components are used as in the Cobra-4 Top, providing the ideal extension for the low- and midrange line array. In all, eight Cobra-PWH bass horns are needed to generate the pressure and projection in the bass region

required by typical Top 40 bands. Depending upon the geometry of the room, these can be stacked or arranged as a horizontal bass array.

The Cobra-4 System can be driven either by ready-wired and pre-programmed amp racks, comprising a controller, power amplifiers and AF- and AC connector panels, or by individual (user-configured) racks. When PowerH power amplifiers are used in conjunction with RCM-26 modules, advantage can be taken of FIR-linearized presets.



**OPTIMIZED FACTORY PRESETS INCLUDING FIR-TUNE LINEARIZATION ARE AVAILABLE FOR DSP 600, P 64 AND PowerH AMPLIFIERS WITH RCM-26 UNDER IRIS-NET**



## D-Lite TECHNICAL SPECIFICATIONS

D-Lite						
Type / Name	D 8 / D 8W	D 8A	D 11A	D 12 / D 12W		
<b>Cabinet</b>	Fullrange	Fullrange	Fullrange	Fullrange		
<b>Configuration</b>	Passive 2-Way	Powered 2-Way	Powered 2-Way	Passive 2-Way		
<b>Components</b>	8" / 1"	8" / 1"	12" / 1"	12" / 1"		
<b>Impedance</b>	8 Ohms	---	---	8 Ohms		
<b>Rated Power RMS</b>	250 W	200 W HF 200 W LF	200 W HF 200 W LF	300 W		
<b>Peak Power</b>	1000 W	---	---	1200 W		
<b>Max. Amplifier Output Capability</b>	---	800 W	800 W	---		
<b>SPL 1 W / 1 m</b>	94 dB	---	---	98 dB		
<b>Max. SPL 1 m / calc.</b>	124 dB	123 dB	126 dB	129 dB		
<b>Freq. Range</b>	65 Hz - 18 kHz	56 Hz - 20 kHz	48 Hz - 20 kHz	70 Hz - 18 kHz		
<b>Coverage (H x V)</b>	90° x 90°	90° x 90°	80° x 40°	80° x 40°		
<b>Dimensions (W x H x D) mm</b>	282 x 442 x 259	282 x 442 x 259	430 x 586 x 321	430 x 586 x 321		
<b>Net. Weight</b>	8.8 kg	9.0 kg	15.3 kg	16 kg		
<b>Accessories</b>	Seite 40 - 41	Seite 40 - 41	Seite 40 - 41	Seite 40 - 41		

D-Lite						
Type / Name	D 12R / D 12RW	D 12-3	D 15-3			
<b>Cabinet</b>	Fullrange	Fullrange	Fullrange			
<b>Configuration</b>	Passive 2-Way Weatherproof	Passive 3-Way	Passive 3-Way			
<b>Components</b>	12" / 1"	12" / 6" / 1"	15" / 6" / 1"			
<b>Impedance</b>	8 Ohms	8 Ohms	8 Ohms			
<b>Rated Power RMS</b>	300 W	350 W	500 W			
<b>Peak Power</b>	1200 W	1400 W	2000 W			
<b>SPL 1 W / 1 m</b>	98 dB	100 dB	100 dB			
<b>Max. SPL 1 m / calc.</b>	129 dB	131 dB	133 dB			
<b>Freq. Range</b>	70 Hz - 18 kHz	70 Hz - 20 kHz	50 Hz - 20 kHz			
<b>Coverage (H x V)</b>	80° x 40°	90° x 50°	90° x 50°			
<b>Dimensions (W x H x D) mm</b>	430 x 586 x 321	430 x 586 x 321	447 x 686 x 413			
<b>Net. Weight</b>	16.2 kg	19 kg	24 kg			
<b>Accessories</b>	Seite 40 - 41	Seite 40 - 41	Seite 40 - 41			



## D-Lite

Type / Name	Sub 112				
<b>Cabinet</b>	Subwoofer				
<b>Configuration</b>	Vented - Direct Radiator				
<b>Components</b>	1 x 12"				
<b>Impedance</b>	8 Ohms				
<b>Rated Power RMS</b>	400 W				
<b>Peak Power</b>	1600 W				
<b>SPL 1 W / 1 m</b>	92 dB				
<b>Max. SPL 1 m / calc.</b>	124 dB				
<b>Freq. Range</b>	43 Hz - 350 Hz (internal Hi-Cut)				
<b>Dimensions (W x H x D) mm</b>	445 x 380 x 445				
<b>Net. Weight</b>	20 kg				
<b>Accessories</b>	Seite 40 - 41				

## D-Lite

Type / Name	PowerSub 112	PowerSub 212	PowerSub 312		
<b>Cabinet</b>	Subwoofer	Subwoofer	Subwoofer		
<b>Configuration</b>	Powered 1-Channel	Powered 1-Channel	Powered 3-Channel		
<b>Components</b>	1 x 12"	2 x 12"	1 x 12"		
<b>Rated Power RMS</b>	200 W	400 W	2 x 250 W MH 1 x 800 W WLF		
<b>Max. Amplifier Output Capability</b>	400 W	800 W	1800 W		
<b>Max. SPL 1 m / calc.</b>	121 dB	127 dB	123 dB		
<b>Freq. Range</b>	40 Hz - 130 Hz	40 Hz - 130 Hz	44 Hz - 130 Hz		
<b>Dimensions (W x H x D) mm</b>	445 x 380 x 445	445 x 755 x 445	445 x 380 x 445		
<b>Net. Weight</b>	20 kg	39.5 kg	22.5 kg		
<b>Accessories</b>	Seite 40 - 41	Seite 40 - 41	Seite 40 - 41		

## A-Line Family TECHNICAL SPECIFICATIONS

A-Line			
Property	A 112A	A 115A	A 118A
<b>Order No.</b>	230 V: F01U270188 (A112A-230V)	230 V: F01U270189 (A115A-230V)	230 V: F01U270190 (A118A-230V)
	120 V: F01U275161 (A112A-120V)	120 V: F01U275163 (A115A-120V)	120 V: F01U275164 (A118A-120V)
<b>Cabinet</b>	Powered two-way fullrange speaker, 12" woofer, 1.5" compression driver, vented design	Powered two-way fullrange speaker, 15" woofer, 1.5" compression driver, vented design	Powered Subwoofer 1 x 18", vented design
<b>Maximum Amplifier Output Capability, IHF-A</b>	500 W		400 W
<b>Amplifier Power RMS</b>	420 W		305 W
<b>Output Stage Topology, amplifier</b>	Class D		
<b>Max. SPL 1m / calc.</b>	121 dB	124 dB	123 dB
<b>Frequency Range (-10 dB)</b>	55 Hz to 17 kHz	50 Hz to 17 kHz	40 Hz to 130 Hz
<b>Frequency Response (-3 dB)</b>	65 Hz to 16 kHz	60 Hz to 16 kHz	50 Hz to 100 Hz
<b>Nominal Coverage Angle (Horizontal x Vertical)</b>	90° x 50°		Omnidirectional
<b>Audio Input (LINE 1 or LINE 2/MIC)</b>	INPUT 1: XLR and 1/4" TRS combination INPUT 2: XLR and 1/4" TRS combination		INPUT: XLR and 1/4" TRS combination
<b>Audio Input (AUX)</b>	Stereo RCA, unbalanced		-
<b>Audio Output (LINK OUTPUT)</b>	XLR, balanced		
<b>Digital Signal Processing</b>	28/56-Bit, 48 kHz		
<b>Crossover Frequency</b>	1.7 kHz		100 Hz
<b>Switchable Phase (Polarity)</b>	-	-	0°, 180°
<b>LF Transducer</b>	1 x EVS-12K, 305 mm (12"), F01U250937	1 x EVS-15K, 381 mm (15"), F01U250940	1 x EVS-18K, 457 mm (18"), F01U250964
<b>HF Transducer</b>	DH-1K, 39 mm (1.5"), Titanium Diaphragm Compression Driver, F01U250928		-
<b>Power Requirement</b>	230 V: 220 to 240 V AC, 50 to 60 Hz, 0.6 A, IEC inlet 120 V: 100 to 120 V AC, 50 to 60 Hz, 1.0 A, IEC inlet		
<b>Safety Class</b>	I		
<b>Operating Temperature Range</b>	0 °C to 40 °C		
<b>Dimensions (W x H x D)</b>	607 mm x 362 mm x 340 mm	708 mm x 432 mm x 382 mm	661 mm x 507 mm x 574 mm
<b>Net Weight</b>	16.8 kg	22.5 kg	31.3 kg
<b>Shipping Weight</b>	21.9 kg	28.4 kg	40.1 kg
<b>Warranty</b>	3 years	3 years	3 years
<b>Enclosure Material</b>	15 mm Multi-ply wood		
<b>Finish</b>	Textured paint		
<b>Grille</b>	18 GA steel with black powder coat		
<b>Handles</b>	1	2	2
<b>Optional Accessories</b>			
Dust Cover	SH-112A: F01U270395	SH-115A: F01U270396	SH-118A: F01U270397
VPM 1500, variable speaker pole	F01U141047		-
BS 35, speaker stand	F01U141046		-

A-LINE			
Property	A 112	A 115	A 118
<b>Order No.</b>	F01U270185	F01U270186	F01U270187
<b>Cabinet</b>	Fullrange	Fullrange	Subwoofer
<b>Nominal impedance</b>	8 Ohms	8 Ohms	8 Ohms
<b>Minimum impedance</b>	7.0 Ohms	7.4 Ohms	6.7 Ohms
<b>Power Handling</b>			
continuous	250 W	400 W	400 W
program	500 W	800 W	800 W
peak	1000 W	1600 W	1600 W
<b>Max. SPL</b> (calculated with peak power)	124 dB	129 dB	128 dB
<b>Axial Sensitivity</b>	94 dB	97 dB	96 dB
<b>Frequency Range (-10 dB)</b>	55 Hz to 20 kHz	55 Hz to 20 kHz	40 Hz to 200 Hz
<b>Frequency Response (-3 dB)</b>	82 Hz to 18 kHz	75 Hz to 18 kHz	50 Hz to 100 Hz
<b>Recommended HP Frequency</b>	45 Hz	40 Hz	30 Hz
<b>Coverage</b> (Horizontal x Vertical)	90° x 50°	90° x 50°	Omnidirectional
<b>LF Transducer</b>	1 x EVS-12K, 305 mm (12"), F01U250937	1 x EVS-15K, 381 mm (15"), F01U250940	1 x EVS-18K, 457 mm (18"), F01U250964
<b>HF Transducer</b>	DH-1K, 39 mm (1.5"), Titanium Diaphragm Compression Driver, F01U250928	DH-1K, 39 mm (1.5"), Titanium Diaphragm Compression Driver, F01U250928	-
<b>Crossover Frequency</b>	2.1 kHz	2.1 kHz	-
<b>Connectors</b>	2 x Neutrik Speakon NL4	2 x Neutrik Speakon NL4	2 x Neutrik Speakon NL4
<b>Enclosure Material</b>	9-ply, 15 mm Plywood, internally braced, with textured paint	9-ply, 15 mm Plywood, internally braced, with textured paint	9-ply, 15 mm Plywood, internally braced, with textured paint
<b>Grille</b>	18-GA Steel with black powdercoat	18-GA Steel with black powdercoat	18-GA Steel with black powdercoat
<b>Handles</b>	1	2	2
<b>Dimensions</b> (H x W x D)	607 mm x 362 mm x 340 mm	708 mm x 432 mm x 382 mm	661 mm x 507 mm x 574 mm
<b>Net Weight</b>	16.0 kg	21.9 kg	30.6 kg
<b>Shipping Weight</b>	20.3 kg	27.1 kg	37.3 kg
<b>Warranty</b>	5 years	5 years	5 years
<b>Optional Accessories</b>			
VPM 1500, variable speaker pole	F01U141047	F01U141047	-
BS 35, speaker stand	F01U141046	F01U141046	-
Dust Cover	SH-112A: F01U270395	SH-115A: F01U270396	SH-118A: F01U270397
<b>Recommended extensions</b>			
A 118 Subwoofer	F01U270187	F01U270187	-
A 112 12" fullrange cabinet	-	-	F01U270185
A 115 15" fullrange cabinet	-	-	F01U270186



## Corus Evolution TECHNICAL SPECIFICATIONS

Corus Evolution						
Type / Name	C 12.2	C 15.2	C 25.2			
<b>Cabinet</b>	Fullrange	Fullrange	Fullrange			
<b>Configuration</b>	Passive 2-Way	Passive 2-Way	Passive 2-Way			
<b>Components</b>	12" / 1"	15" / 1"	2 x 15" / 1"			
<b>Impedance</b>	8 Ohms	8 Ohms	4 Ohms			
<b>Rated Power RMS</b>	500 W	500 W	1000 W			
<b>Peak Power</b>	2000 W	2000 W	4000 W			
<b>SPL 1 W / 1 m</b>	97 dB	100 dB	103 dB			
<b>Max. SPL 1 m / calc.</b>	130 dB	133 dB	139 dB			
<b>Freq. Range</b>	60 Hz - 20 kHz	57 Hz - 20 kHz	55 Hz - 15 kHz			
<b>Coverage (H x V)</b>	90° x 50°	90° x 50°	60° x 40°			
<b>Dimensions (W x H x D) mm</b>	387 x 550 x 374	445 x 660 x 445	445 x 1130 x 445			
<b>Net. Weight</b>	20.6 kg	28.1 kg	44.6 kg			

Corus Evolution						
Type / Name	Sub 1.15	Sub 1.18	Sub 2.18			
<b>Cabinet</b>	Subwoofer	Subwoofer	Subwoofer			
<b>Configuration</b>	Vented - Direct Radiator	Vented - Direct Radiator	Vented - Direct Radiator			
<b>Components</b>	1 x 15"	1 x 18"	2 x 18"			
<b>Impedance</b>	8 Ohms	8 Ohms	4 Ohms			
<b>Rated Power RMS</b>	500 W	500 W	1000 W			
<b>Peak Power</b>	2000 W	2000 W	4000 W			
<b>SPL 1 W / 1 m</b>	93 dB	97 dB	102 dB			
<b>Max. SPL 1 m / calc.</b>	125 dB	130 dB	138 dB			
<b>Freq. Range</b>	29 Hz - 290 Hz	36 Hz - 360 Hz	29 Hz - 240 Hz			
<b>Coverage (H x V)</b>	---	---	---			
<b>Dimensions (W x H x D) mm</b>	445 x 605 x 550	508 x 768 x 595	508 x 1200 x 710			
<b>Net. Weight</b>	28.4 kg	38.1 kg	68.2 kg			

## VariLine TECHNICAL SPECIFICATIONS

VariLine						
Type / Name	VL 62 / VL 62W	VL 262 / VL 262W	VL 122	VL 152	VL 212	
<b>Cabinet</b>	Fullrange	Fullrange	Fullrange	Fullrange	Fullrange	
<b>Configuration</b>	Passive 2-Way	Passive 2-Way	Passive 2-Way or Active 2-Way	Passive 2-Way or Active 2-Way	Passive 2-Way or Active 2-Way	
<b>Components</b>	1 x 6" / 1"	2 x 6" / 1"	1 x 12" / 1.4"	1 x 15" / 1.4"	2 x 12" / 1.4"	
<b>Impedance</b>	16 Ohms	8 Ohms	8 Ohms	8 Ohms	4 Ohms	
<b>Rated Power RMS</b>	150 W	300 W	400 W	500 W	800 W	
<b>Peak Power</b>	600 W	1200 W	1600 W	2000 W	3200 W	
<b>SPL 1 W / 1 m</b>	94 dB	97 dB	99 dB	100 dB	102 dB	
<b>Max. SPL 1 m / calc.</b>	122 dB	128 dB	131 dB	133 dB	137 dB	
<b>Freq. Range</b>	90 Hz - 20 kHz	90 Hz - 20 kHz	60 Hz - 20 kHz	50 Hz - 20 kHz	80 Hz - 20 kHz	
<b>Coverage (H x V)</b>	90° x 40°	90° x 40°	90° x 45°	90° x 45°	90° x 45°	
<b>Dimensions (W x H x D) mm</b>	217 x 375 x 230	217 x 543 x 230	385 x 715 x 374	441 x 780 x 407	385 x 1035 x 374	
<b>Net. Weight</b>	8 kg	10 kg	24 kg	26 kg	34 kg	
<b>Accessories</b>	Seite 66 - 67	Seite 66 - 67	Seite 66 - 67	Seite 66 - 67	Seite 66 - 67	

VariLine						
Type / Name	SUB 18	SUB 28				
<b>Cabinet</b>	Subwoofer	Subwoofer				
<b>Configuration</b>	Vented - Direct Radiator	Vented - Direct Radiator				
<b>Components</b>	1 x 18"	2 x 18"				
<b>Impedance</b>	8 Ohms	4 Ohms				
<b>Rated Power RMS</b>	700 W	1400 W				
<b>Peak Power</b>	2800 W	5600 W				
<b>SPL 1 W / 1 m</b>	98 dB	101 dB				
<b>Max. SPL 1 m / calc.</b>	132 dB	138 dB				
<b>Freq. Range</b>	35 Hz - 700 Hz	35 Hz - 700 Hz				
<b>Dimensions (W x H x D) mm</b>	505 x 805 x 570	605 x 1205 x 675				
<b>Net. Weight</b>	49 kg	82 kg				
<b>Accessories</b>	Seite 66 - 67	Seite 66 - 67				

## TS 400 TECHNICAL SPECIFICATIONS

TS 400						
Type / Name	TS 400					
<b>Cabinet</b>	Full Range					
<b>Configuration</b>	Passive 2.5-Way					
<b>Components</b>	4 x 6" / 1"					
<b>Impedance</b>	4 Ohms					
<b>Rated Power RMS</b>	600 W					
<b>Peak Power</b>	2400 W					
<b>SPL 1 W / 1 m</b>	97 dB					
<b>Max. SPL 1 m / calc.</b>	131 dB					
<b>Freq. Range (-10 dB)</b>	74 Hz - 20 kHz					
<b>Coverage (H x V)</b>	90° x 40°					
<b>Dimensions (W x H x D) mm</b>	199 x 935 x 281					
<b>Net. Weight</b>	17 kg					

## PSD/E SUBWOOFERS TECHNICAL SPECIFICATIONS

PSD/E SUBWOOFERS					
Type / Name	PSD 215	PSD 218	Type / Name	PSE 215	PSE 218
<b>Cabinet</b>	Subwoofer	Subwoofer	<b>Cabinet</b>	Subwoofer	Subwoofer
<b>Configuration</b>	Powered 2-Channel	Powered 2-Channel	<b>Configuration</b>	Vented-Direct Radiator	Vented-Direct Radiator
<b>Components</b>	1 x 15"	1 x 18"	<b>Components</b>	1 x 15"	1 x 18"
<b>Rated Power RMS</b>	1000 W TOP 1000 W SUB	1000 W TOP 1000 W SUB	<b>Impedance</b>	8 Ohms	8 Ohms
<b>Max. Amplifier Output Capability</b>	3200 W	3200 W	<b>Rated Power RMS</b>	500 W	500 W
<b>Max. SPL 1 m / calc.</b>	128 dB	130 dB	<b>Peak Power</b>	2000 W	2000 W
<b>Freq. Range</b>	40 Hz - X-Over	34 Hz - X-Over	<b>SPL 1 W / 1 m</b>	98 dB	98 dB
<b>Dimensions (W x H x D) mm</b>	640 x 465 x 694	759 x 575 x 694	<b>Max. SPL 1 m / calc.</b>	131 dB	131 dB
<b>Net. Weight (without wheels)</b>	37.2 kg	45.2 kg	<b>Freq. Range</b>	38 Hz - 3.5kHz	32 Hz - 3.5kHz
<b>Wheels</b>	2.4 kg	2.4 kg	<b>Dimensions (W x H x D) mm</b>	640 x 465 x 694	759 x 575 x 694
			<b>Net. Weight (without wheels)</b>	31.6 kg	39.6 kg
			<b>Wheels</b>	2.4 kg	2.4 kg



## CXM 15 / CXM 15W TECHNICAL SPECIFICATIONS

CXM 15 / CXM 15W						
Type / Name	CXM 15	CXM 15W				
<b>Cabinet</b>	Coaxial Monitor	Coaxial Monitor				
<b>Configuration</b>	Passive 2-Way or Active 2-Way	Passive 2-Way or Active 2-Way				
<b>Components</b>	15" / 1.4"	15" / 1.4"				
<b>Impedance</b>	8 Ohms	8 Ohms				
<b>Rated Power RMS</b>	450 W	450 W				
<b>Peak Power</b>	1800 W	1800 W				
<b>SPL 1 W / 1 m</b>	102 dB	102 dB				
<b>Max. SPL 1 m / calc.</b>	135 dB	135 dB				
<b>Freq. Range</b>	100 Hz - 18 kHz	100 Hz - 18 kHz				
<b>Coverage (H x V)</b>	60° x 60°	60° x 60°				
<b>Dimensions (W x H x D) mm</b>	600 x 334 x 412	600 x 334 x 412				
<b>Net. Weight</b>	19 kg	19 kg				

## Xa 2 SYSTEM TECHNICAL SPECIFICATIONS

Xa 2 SYSTEM						
Type / Name	FX 12	FX 20				
<b>Cabinet</b>	Mid - High	Subwoofer				
<b>Configuration</b>	Passive 2-Way Horn loaded	Planar Wave-guide Horn				
<b>Components</b>	12" / 1.4"	1 x 18"				
<b>Impedance</b>	8 Ohms	8 Ohms				
<b>Rated Power RMS</b>	350 W	600 W				
<b>Peak Power</b>	700 W	1200 W				
<b>SPL 1 W / 1 m</b>	106 dB	101 dB				
<b>Max. SPL 1 m / calc.</b>	134 dB	132 dB				
<b>Freq. Range</b>	120 Hz - 19 kHz	30 Hz - 150 Hz				
<b>Coverage (H x V)</b>	80° x 40°	---				
<b>Dimensions (W x H x D) mm</b>	600 x 610 x 814	600 x 905 x 814				
<b>Net. Weight</b>	48 kg	47.5 kg				

## Cobra SYSTEM TECHNICAL SPECIFICATIONS

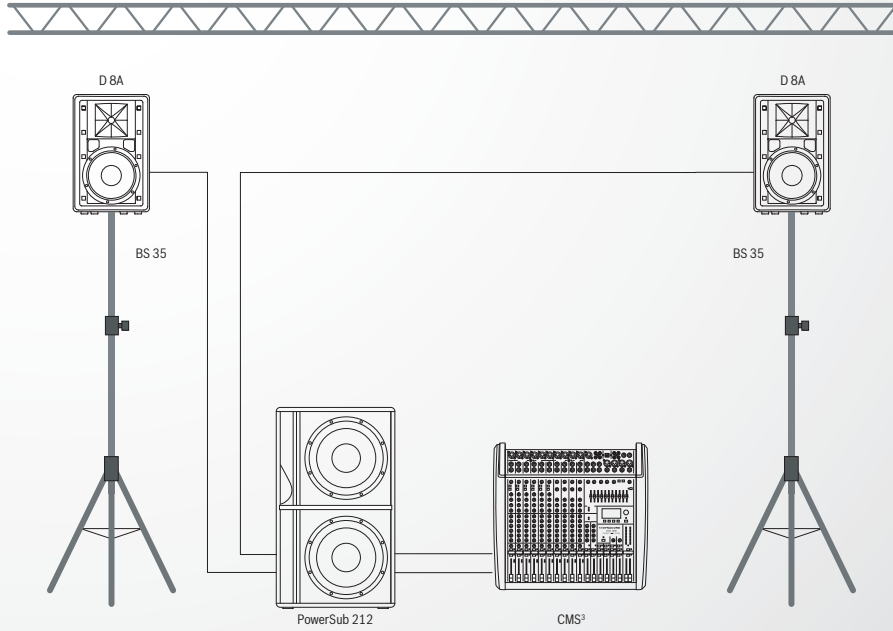
Cobra SYSTEM						
Type / Name	Cobra-Top	Cobra-4 Top	Cobra-4 Far	Cobra-Sub	Cobra-PWH	PWH 28
<b>Cabinet</b>	Fullrange	Fullrange	Fullrange	Subwoofer	Subwoofer	Subwoofer
<b>Configuration</b>	Passive 3-Way	Active 3-Way	Active 3-Way	Vented - Direct Radiator	Planar Wave-guide Horn	Planar Wave-guide Horn
<b>Components</b>	15" / 4 x 4" / 1"	15" / 4 x 4" / 1"	15" / 4 x 4" / 3 x 1"	1 x 18"	1 x 18"	2 x 18"
<b>Impedance</b>	8 Ohms	8 - 8 - 8 Ohms	8 - 8 - 8 Ohms	8 Ohms	8 Ohms	4 Ohms
<b>Rated Power RMS</b>	600 W	400 - 200 - 100 W	400 - 200 - 200 W	600 W	600 W	1400 W
<b>Peak Power</b>	1200 W	800 - 400 - 200 W	800 - 400 - 400 W	1200 W	1200 W	5600 W
<b>SPL 1 W / 1 m</b>	100 dB	100 dB	100 dB	98 dB	101 dB	103 dB
<b>Max. SPL 1 m / calc.</b>	131 dB	131 dB	131 dB	129 dB	132 dB	140 dB
<b>Freq. Range</b>	50 Hz - 15 kHz	50 Hz - 17 kHz	50 Hz - 17 kHz	30 Hz - 170 Hz	30 Hz - 150 Hz	33 Hz - 2 kHz
<b>Coverage (H x V)</b>	90° x 40°	90° x 40°	90° x 5° (HF)	---	---	---
<b>Dimensions (W x H x D) mm</b>	600 x 495 x 717	600 x 495 x 717	600 x 495 x 717	600 x 615 x 717	605 x 910 x 823	1205 x 605 x 1306
<b>Net. Weight</b>	60 kg	54.5 kg	63.5 kg	58 kg	72 kg	129 kg
<b>Accessories</b>	page 110 - 111	page 110 - 111	page 110 - 111	page 110 - 111	page 110 - 111	page 110 - 111

# Application Guide



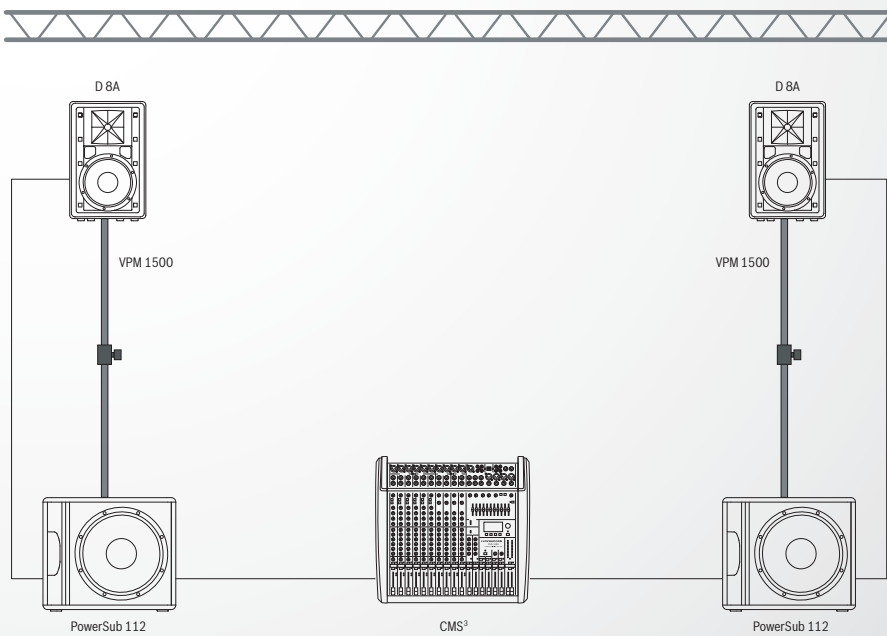
# D-Lite APPLICATION GUIDE

## D-Lite activeone SMALL CLUBS, MOBILE DJs

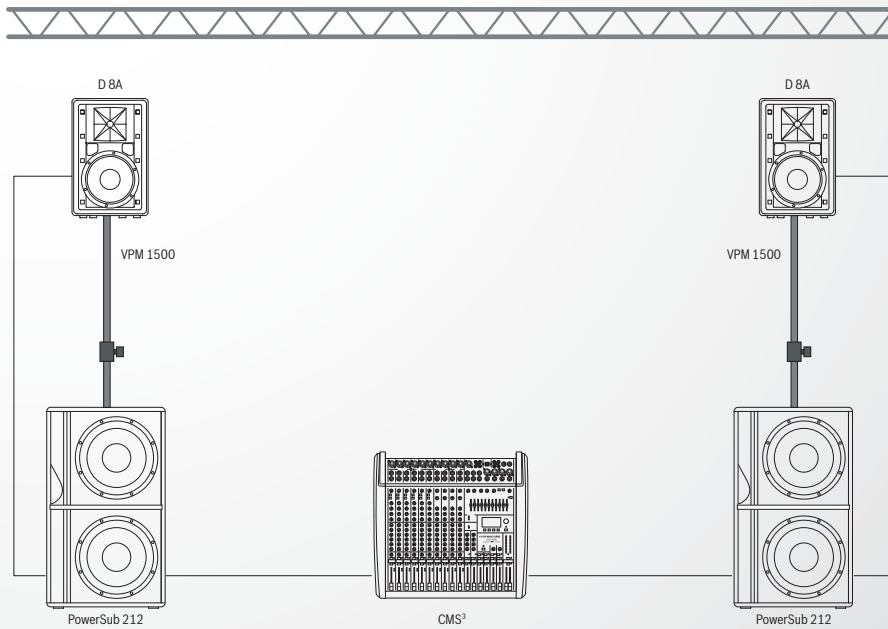


Configuration	Active 3-Way
Cabinet Types	2 x D 8A, 1 x PowerSub 212
Amplifiers	internal
Controllers	-
Cables	XLR
Accessories	2 x BS 35
Horizontal Coverage	2 x 90°
Total Amp Power	2400 W
Typical Distance	10 - 15 m
Options	-
Comments	-

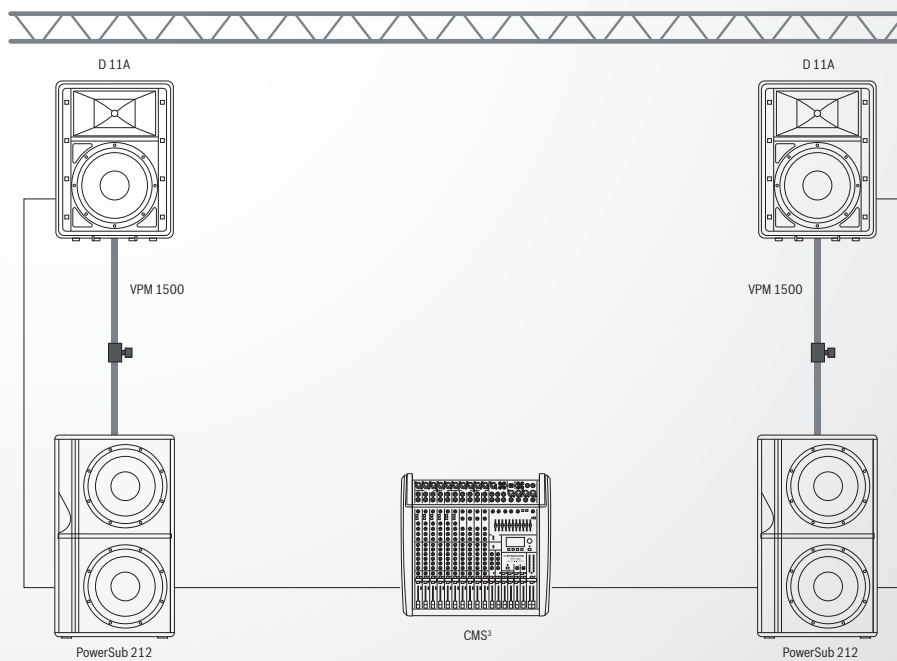
## D-Lite activetwo SMALL CLUBS



Configuration	Active 3-Way
Cabinet Types	2 x D 8A, 2 x PowerSub 112
Amplifiers	internal
Controllers	-
Cables	XLR
Accessories	2 x VPM 1500
Horizontal Coverage	2 x 90°
Total Amp Power	2400 W
Typical Distance	10 - 15m
Options	-
Comments	-

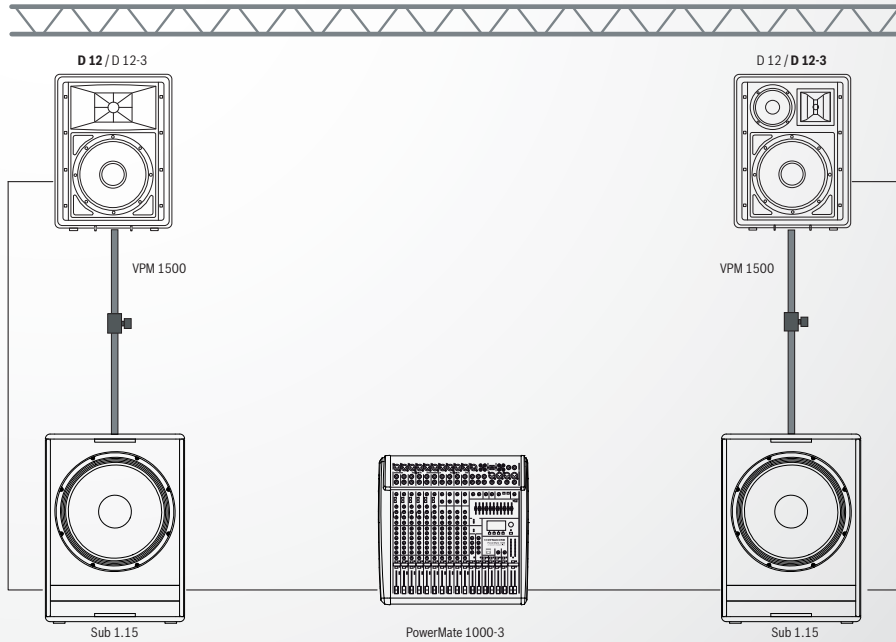
**D-Lite activethree** SMALL CLUBS, MOBILE DJs

Configuration	Active 3-Way
<b>Cabinet Types</b>	2 x D 8A, 2 x PowerSub 212
<b>Amplifiers</b>	internal
<b>Controllers</b>	-
<b>Cables</b>	XLR
<b>Accessories</b>	2 x VPM 1500
<b>Horizontal Coverage</b>	2 x 90°
<b>Total Amp Power</b>	3200 W
<b>Typical Distance</b>	15 - 20m
<b>Options</b>	-
<b>Comments</b>	-

**D-Lite activefour** MUSICIANS, SMALL CLUBS

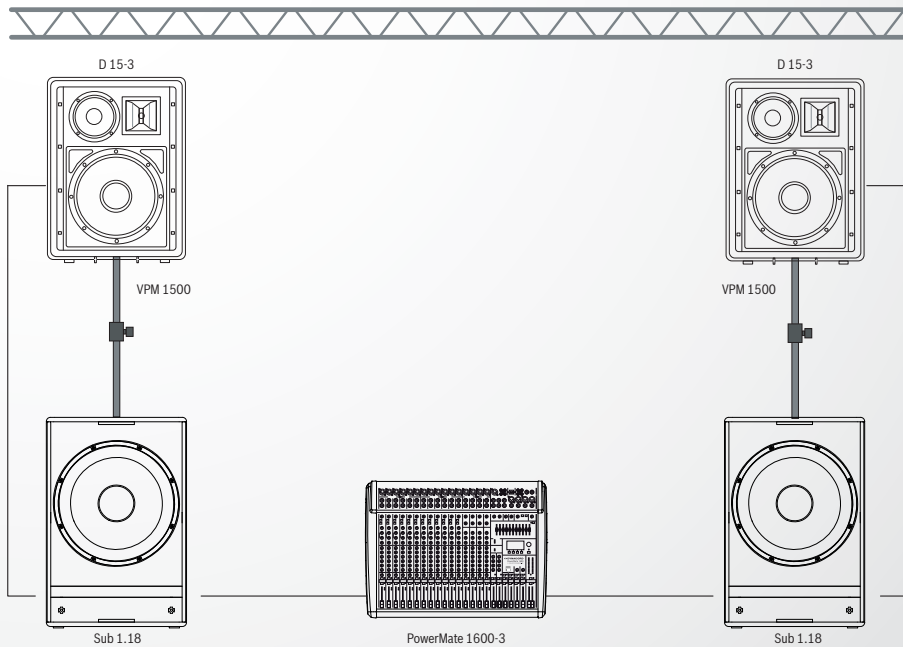
Configuration	Active 3-Way
<b>Cabinet Types</b>	2 x D 11A, 2 x PowerSub 212
<b>Amplifiers</b>	internal
<b>Controllers</b>	-
<b>Cables</b>	XLR
<b>Accessories</b>	2 x VPM 1500
<b>Horizontal Coverage</b>	2 x 80°
<b>Total Amp Power</b>	3200 W
<b>Typical Distance</b>	15 - 20 m
<b>Options</b>	-
<b>Comments</b>	-

**D-Lite** MUSICIANS, SMALL CLUBS



Configuration	Fullrange + Sub
<b>Cabinet Types</b>	2 x D 12 or 2 x D 12-3, 2 x Sub 1.15
<b>Amplifiers</b>	PowerMate 1000-3
<b>Controllers</b>	-
<b>Cables</b>	Speakon
<b>Accessories</b>	2 x VPM 1500
<b>Horizontal Coverage</b>	2 x 80°
<b>Total Amp Power</b>	2 x 1000 W
<b>Typical Distance</b>	10 - 15 m
<b>Options</b>	-
<b>Comments</b>	one added Top or one added Sub can be driven on each side (3 x 8 ohms)

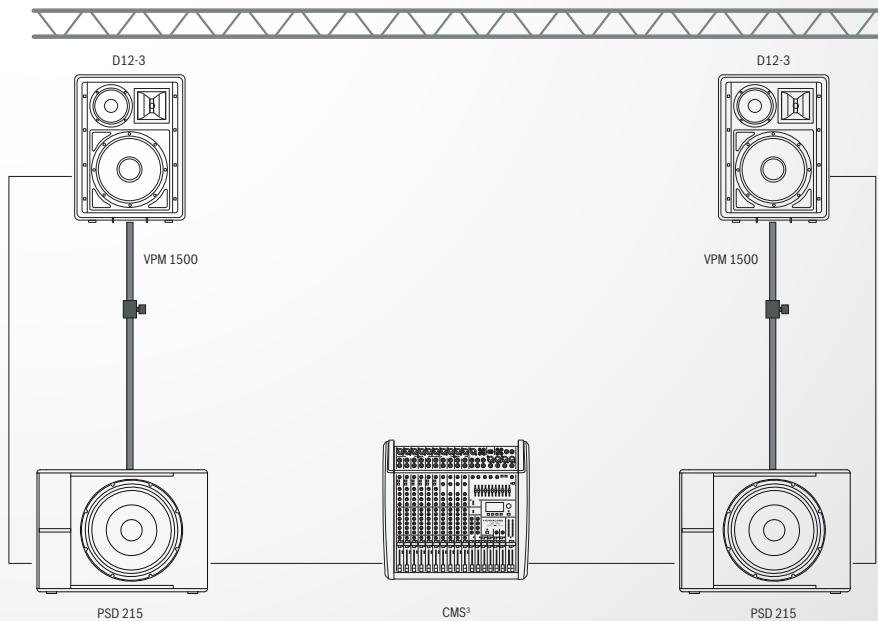
**D-Lite** LIVE BANDS, MEDIUM CLUBS



Configuration	Fullrange + Sub
<b>Cabinet Types</b>	2 x D 15-3, 2 x Sub 1.18
<b>Amplifiers</b>	PowerMate 1600-3
<b>Controllers</b>	-
<b>Cables</b>	Speakon
<b>Accessories</b>	2 x VPM 1500
<b>Horizontal Coverage</b>	2 x 90°
<b>Total Amp Power</b>	2 x 1000 W
<b>Typical Distance</b>	15 - 20 m
<b>Options</b>	-
<b>Comments</b>	one added Top or one added Sub can be driven on each side (3 x 8 ohms)

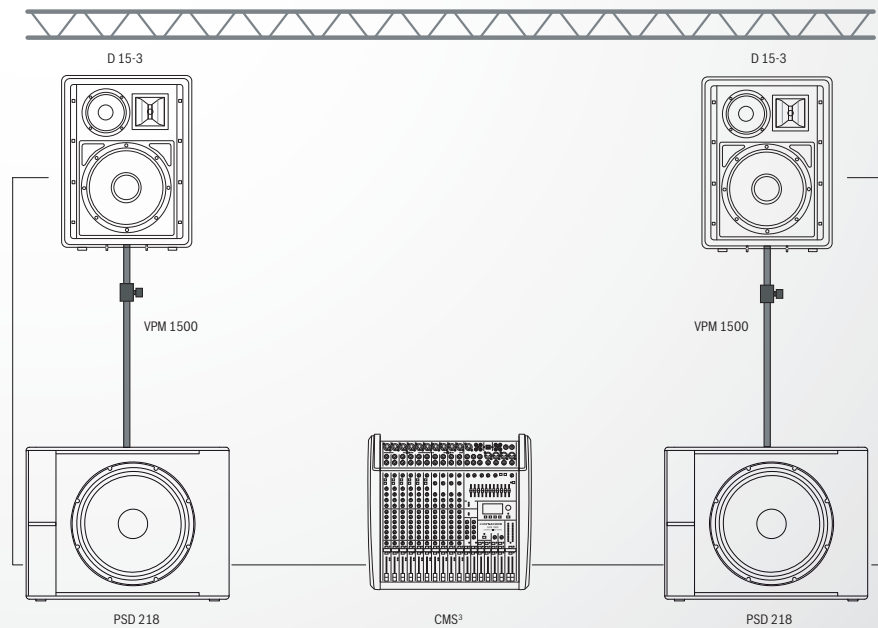


**D-Lite** MUSICIANS, SMALL CLUBS, MOBILE DJ'S



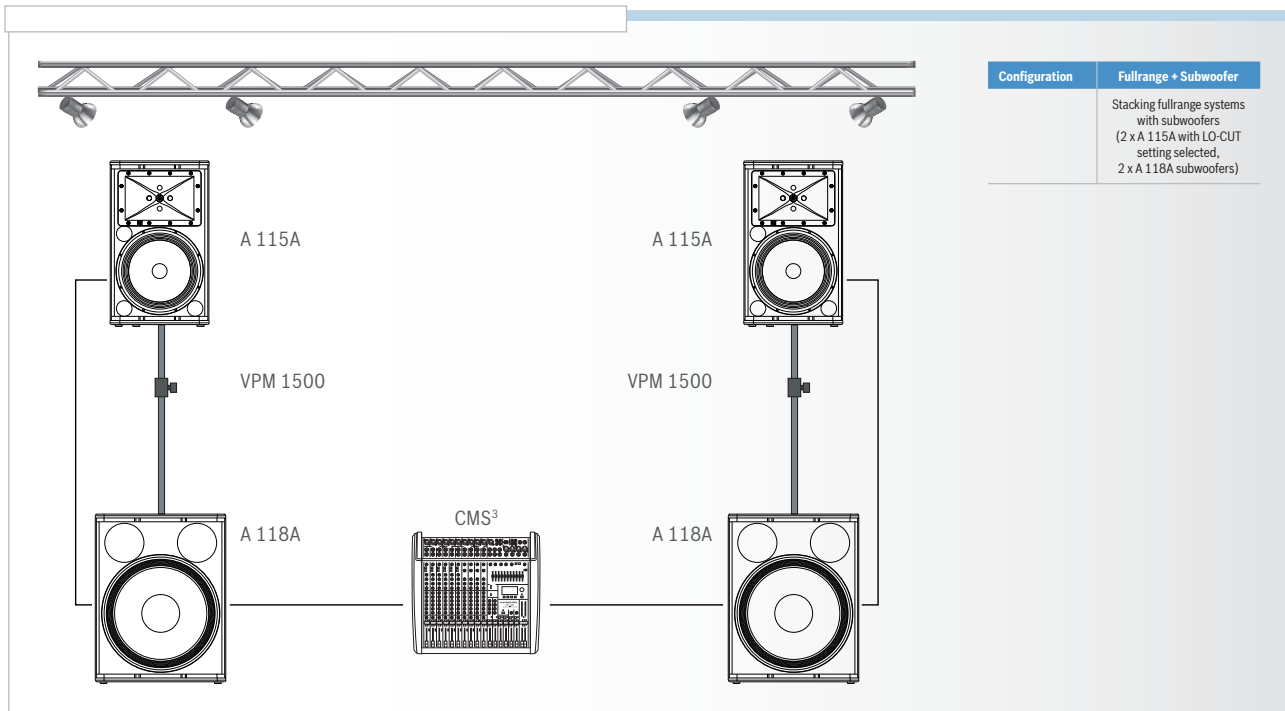
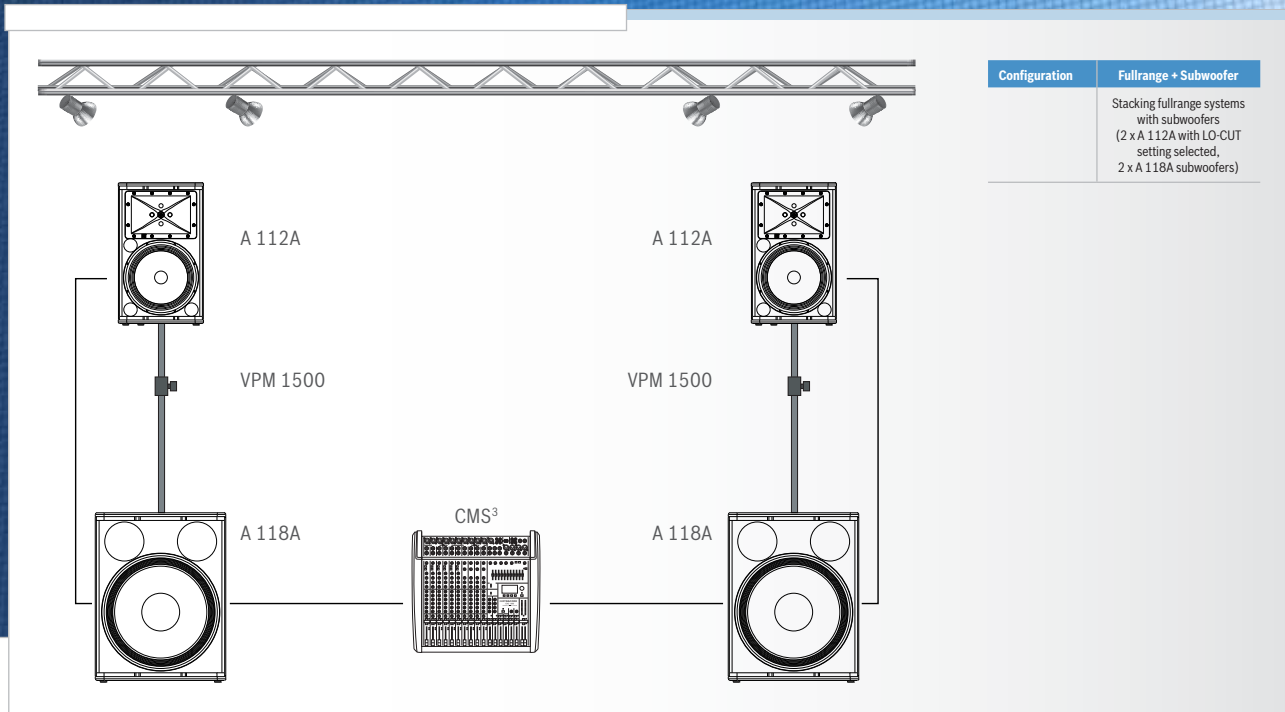
Configuration	Active 2-Way
<b>Cabinet Types</b>	2 x D 12-3, 2 x PSD 215
<b>Amplifiers</b>	internal
<b>Controllers</b>	integrated DSP
<b>Cables</b>	XLR + Speakon
<b>Accessories</b>	2 x VPM 1500
<b>Horizontal Coverage</b>	2 x 90°
<b>Total Amp Power</b>	4000 W
<b>Typical Distance</b>	20 - 25 m
<b>Options</b>	2 x PSE 215
<b>Comments</b>	-

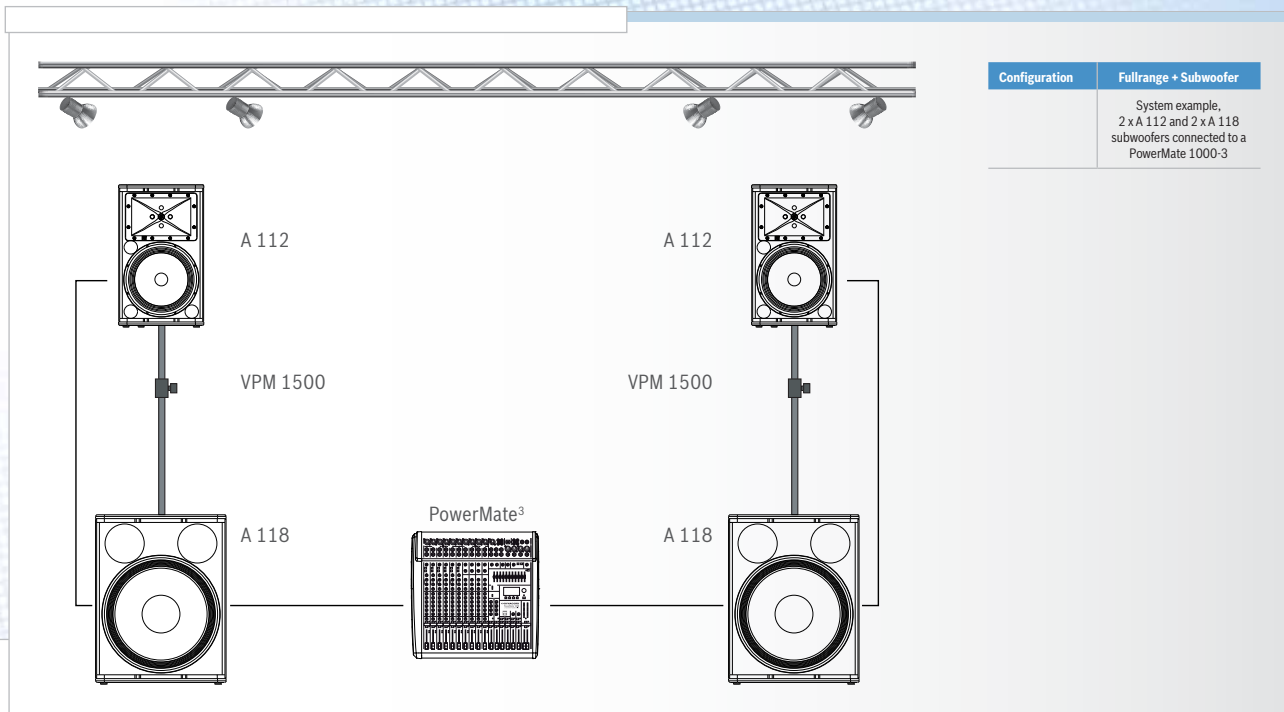
**D-Lite** LIVE BANDS, MEDIUM CLUBS



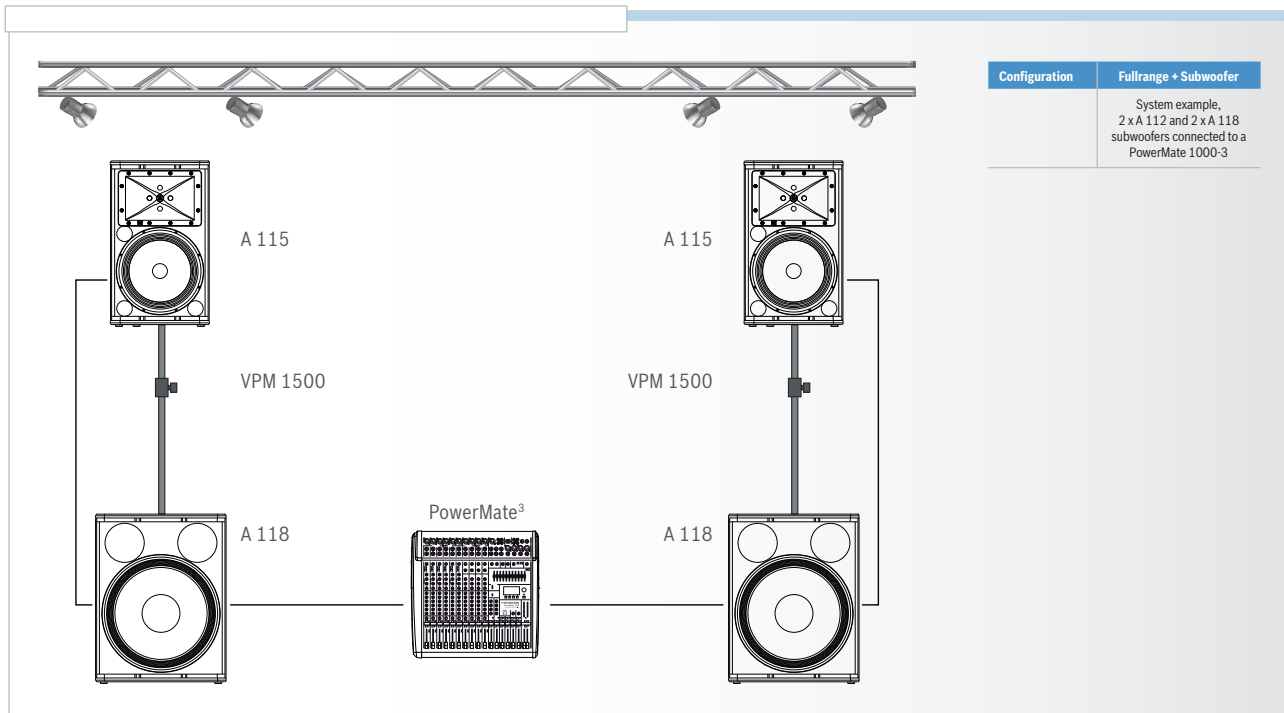
Configuration	Active 2-Way
<b>Cabinet Types</b>	2 x D 15-3, 2 x PSD 218
<b>Amplifiers</b>	internal
<b>Controllers</b>	integrated DSP
<b>Cables</b>	XLR + Speakon
<b>Accessories</b>	2 x VPM 1500
<b>Horizontal Coverage</b>	2 x 90°
<b>Total Amp Power</b>	4000 W
<b>Typical Distance</b>	25 m
<b>Options</b>	2 x PSE 218
<b>Comments</b>	-

# A-Line Family APPLICATION GUIDE





Configuration	Fullrange + Subwoofer
	System example, 2 x A 112 and 2 x A 118 subwoofers connected to a PowerMate 1000-3

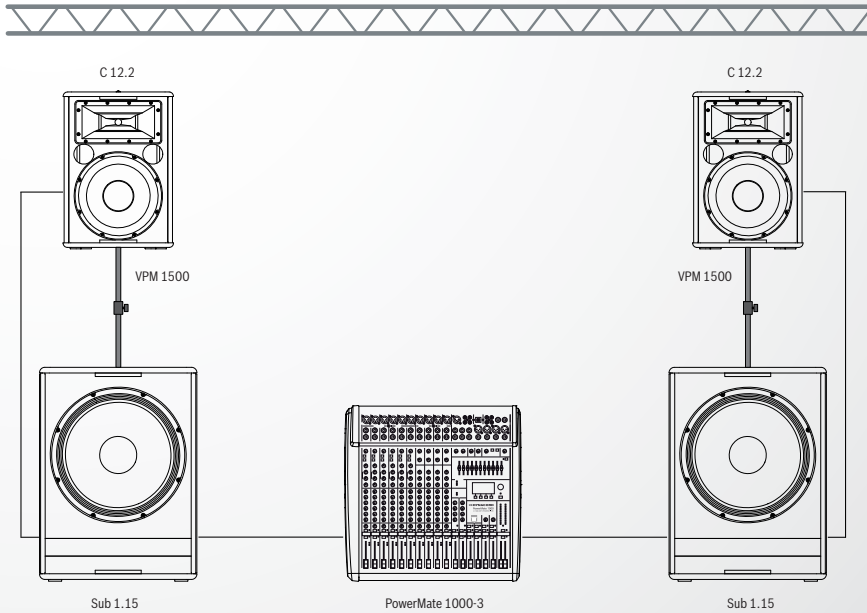


Configuration	Fullrange + Subwoofer
	System example, 2 x A 112 and 2 x A 118 subwoofers connected to a PowerMate 1000-3



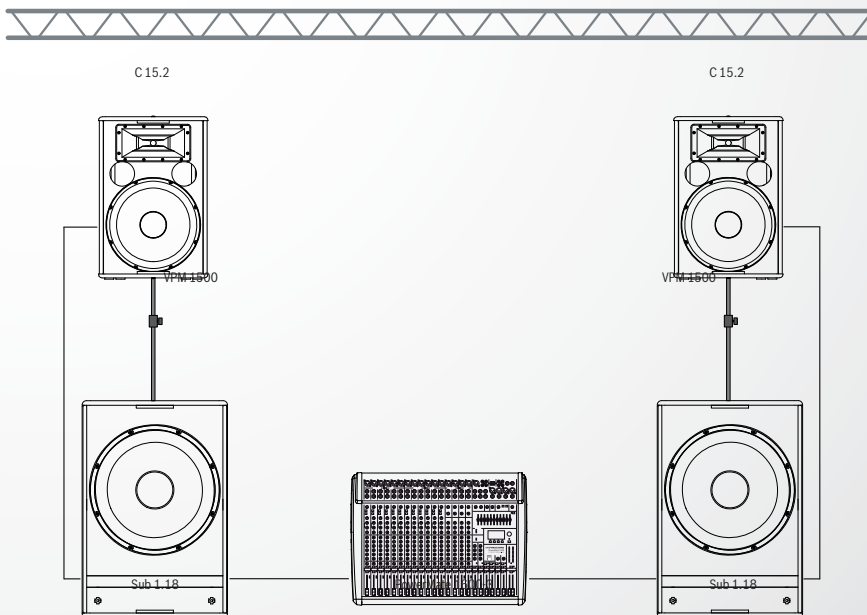
# Corus Evolution APPLICATION GUIDE

## Corus Evolution CLUB, BAR, BISTRO, LIVE



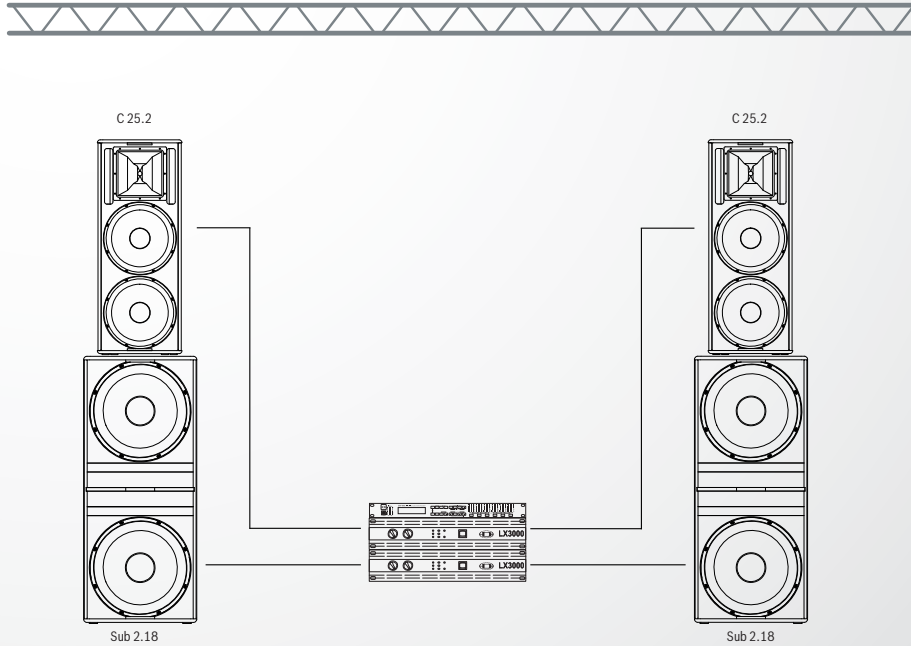
Configuration	Fullrange + Sub
<b>Cabinet Types</b>	2 x C 12.2, 2 x Sub 1.15
<b>Amplifiers</b>	PowerMate 1000-3
<b>Controllers</b>	-
<b>Cables</b>	Speakon
<b>Accessories</b>	2 x VPM 1500
<b>Horizontal Coverage</b>	2 x 90°
<b>Total Amp Power</b>	2 x 1000 W
<b>Typical Distance</b>	10 - 15 m
<b>Options</b>	-
<b>Comments</b>	one added Top or one added Sub can be driven on each side (3 x 8 ohms)

## Corus Evolution CLUB, BAR, BISTRO, LIVE



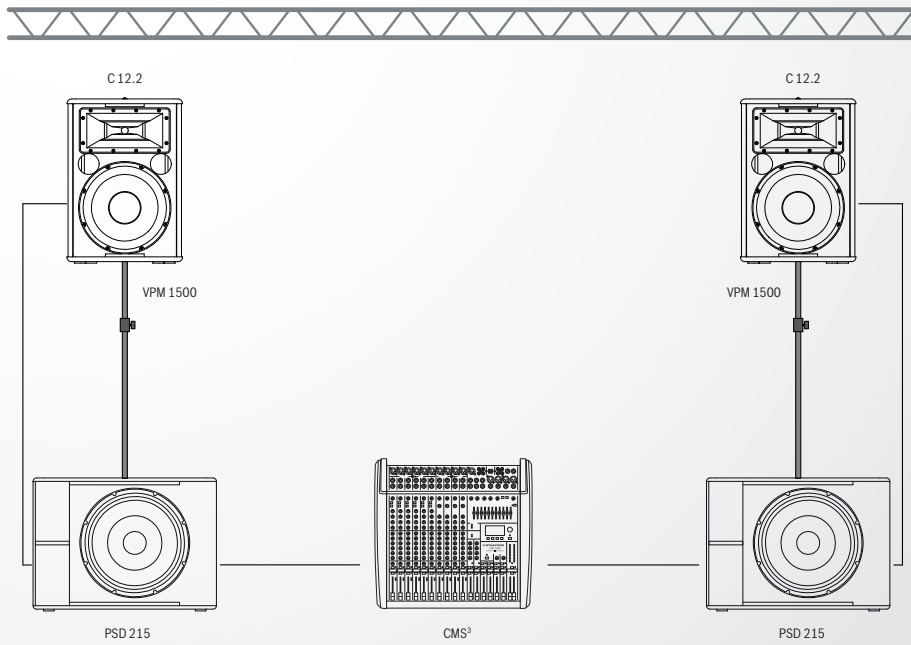
Configuration	Fullrange + Sub
<b>Cabinet Types</b>	2 x C 15.2, 2 x Sub 1.18
<b>Amplifiers</b>	PowerMate 1600-3
<b>Controllers</b>	-
<b>Cables</b>	Speakon
<b>Accessories</b>	2 x VPM 1500
<b>Horizontal Coverage</b>	2 x 90°
<b>Total Amp Power</b>	2 x 1000 W
<b>Typical Distance</b>	15 - 20 m
<b>Options</b>	-
<b>Comments</b>	one added Top or one added Sub can be driven on each side (3 x 8 ohms)

**Corus Evolution** LIVE, MOBILE DJ'S, DISCO



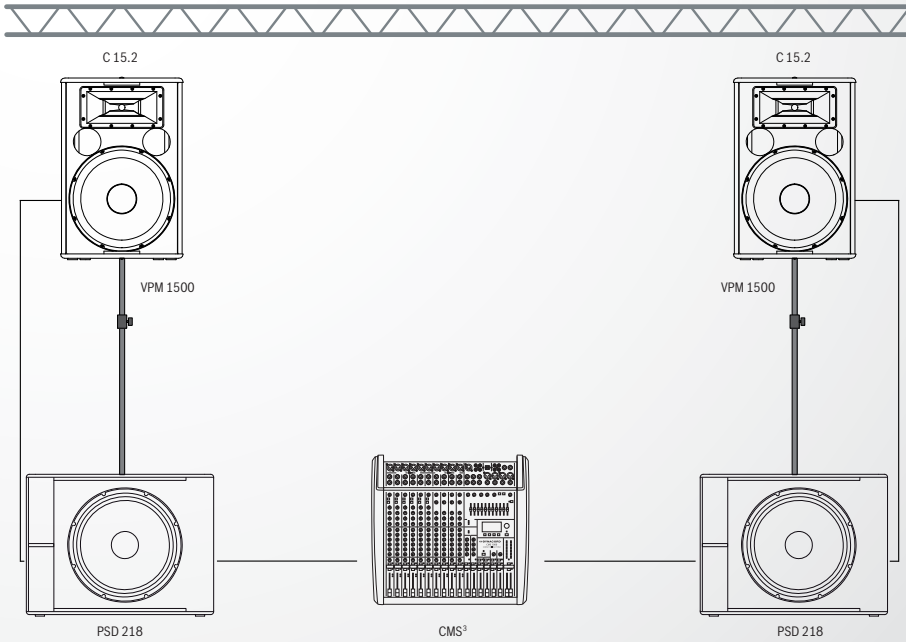
Configuration	Active 2-Way
<b>Cabinet Types</b>	2 x C 25.2, 2 x Sub 2.18
<b>Amplifiers</b>	2 x LX 3000 or SL 2400
<b>Controllers</b>	1 x DSP 600 or DSP 260
<b>Cables</b>	XLR + Speakon
<b>Accessories</b>	-
<b>Horizontal Coverage</b>	2 x 60°
<b>Total Amp Power</b>	6000 W (LX 3000)
<b>Typical Distance</b>	-
<b>Options</b>	-
<b>Comments</b>	FIR-Tune with DSP 600

**Corus Evolution** MUSICIANS, MOBILE DJ'S



Configuration	Active 2-Way
<b>Cabinet Types</b>	2 x C 12.2, 2 x PSD 215
<b>Amplifiers</b>	internal
<b>Controllers</b>	integrated DSP
<b>Cables</b>	XLR + Speakon
<b>Accessories</b>	2 x VPM 1500
<b>Horizontal Coverage</b>	2 x 90°
<b>Total Amp Power</b>	4000 W
<b>Typical Distance</b>	20 - 25 m
<b>Options</b>	2 x C 12.2, 2 x PSE 215
<b>Comments</b>	-

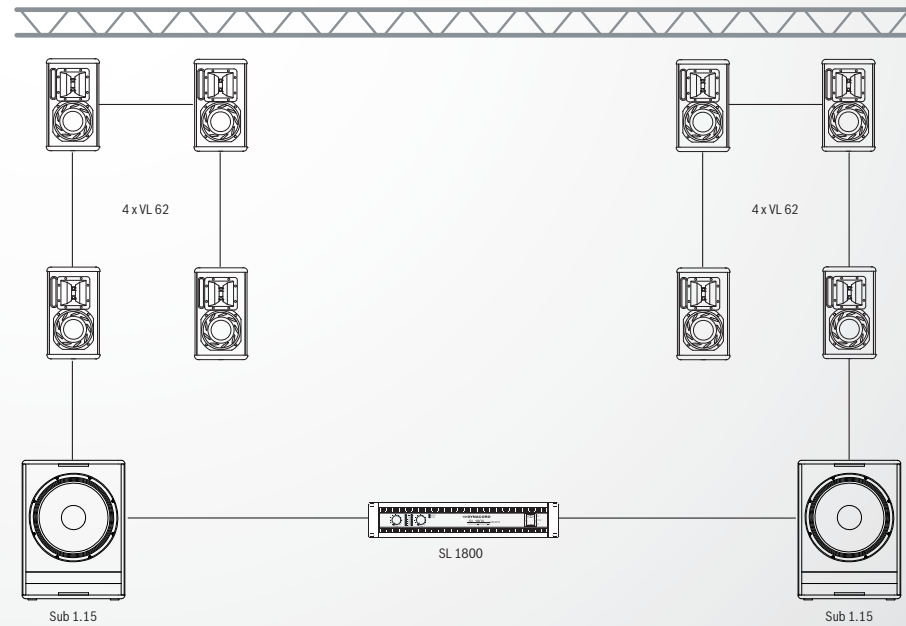
**Corus Evolution** MUSICIANS, MOBILE DJ'S



Configuration	Active 2-Way
<b>Cabinet Types</b>	2 x C 15.2, 2 x PSD 218
<b>Amplifiers</b>	internal
<b>Controllers</b>	integrated DSP
<b>Cables</b>	XLR + Speakon
<b>Accessories</b>	2 x VPM 1500
<b>Horizontal Coverage</b>	2 x 90°
<b>Total Amp Power</b>	4000 W
<b>Typical Distance</b>	25 m
<b>Options</b>	2 x C 15.2, 2 x PSE 218
<b>Comments</b>	-

**VariLine** APPLICATION GUIDE

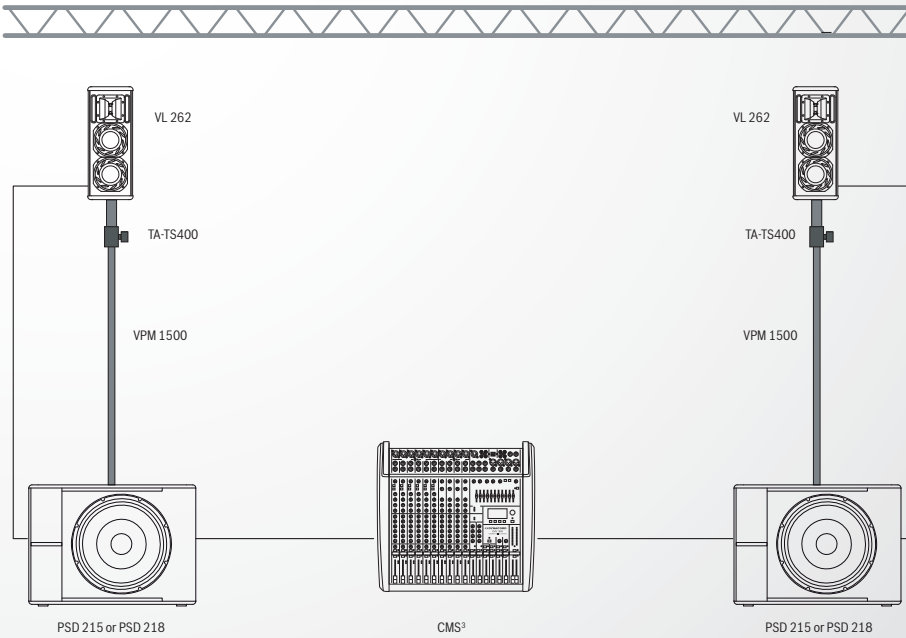
**VariLine** CLUB, BARS, BISTRO



Configuration	Fullrange + Sub
<b>Cabinet Types</b>	8 x VL 62, 2 x Sub 1.15
<b>Amplifiers</b>	1 x SL 1800
<b>Controllers</b>	-
<b>Cables</b>	Speakon
<b>Accessories</b>	8 x WMK 10 (Wall-Mount Kit)
<b>Horizontal Coverage</b>	each cabinet 90°
<b>Total Amp Power</b>	2 x 900 W
<b>Typical Distance</b>	Tops 5 - 10 m
<b>Options</b>	-
<b>Comments</b>	-

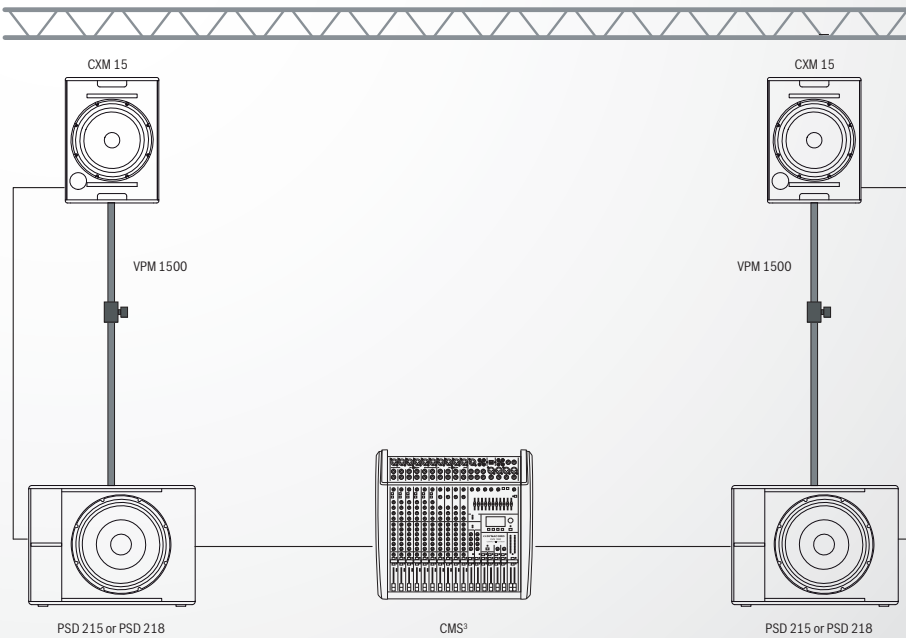


**VariLine** MUSICIANS, MOBILE DJ'S, CLUBS



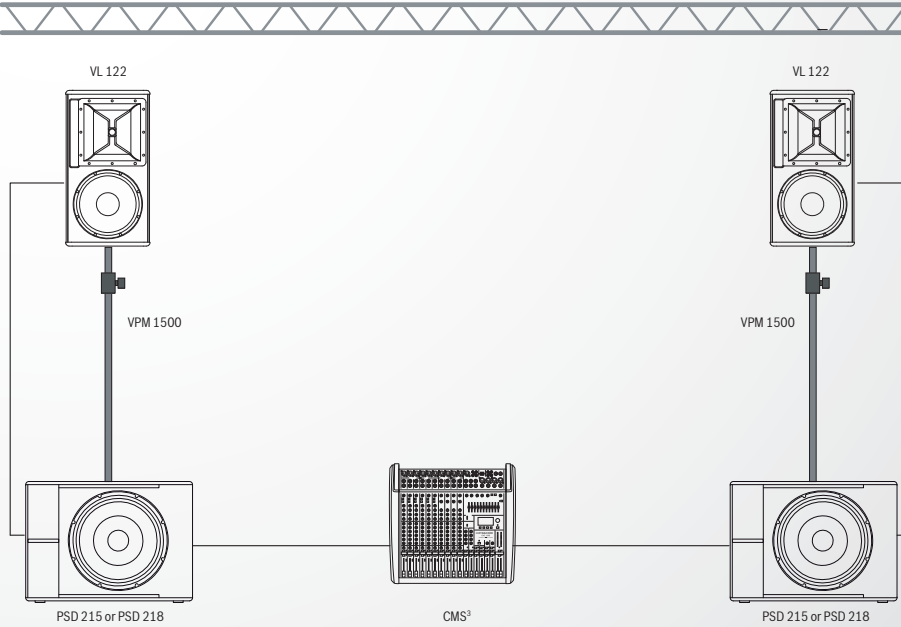
Configuration	Active 2-Way
<b>Cabinet Types</b>	2 x VL 262, 2 x PSD 215 or 2 x PSD 218
<b>Amplifiers</b>	internal
<b>Controllers</b>	integrated DSP
<b>Cables</b>	XLR + Speakon
<b>Accessories</b>	2 x TA-TS400, 2 x VPM 1500
<b>Horizontal Coverage</b>	2 x 90°
<b>Total Amp Power</b>	4000 W
<b>Typical Distance</b>	-
<b>Options</b>	-
<b>Comments</b>	-

**VariLine** MUSICIANS, MOBILE DJ'S, FRONT/SIDE-FILL



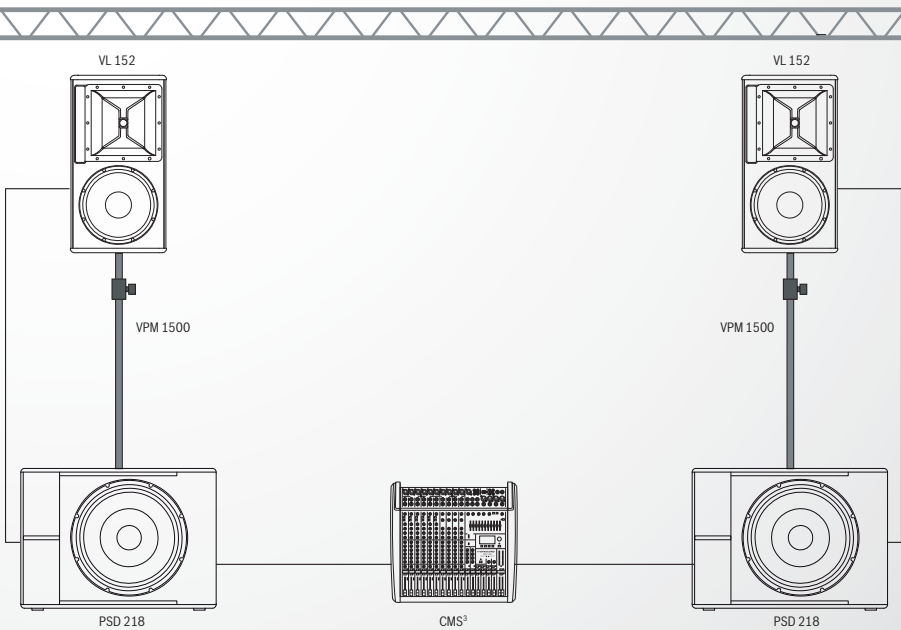
Configuration	Active 2-Way
<b>Cabinet Types</b>	2 x CXM 15 2 x PSD 215 or 2 x PSD 218
<b>Amplifiers</b>	internal
<b>Controllers</b>	integrated DSP
<b>Cables</b>	XLR + Speakon
<b>Accessories</b>	2 x VPM 1500
<b>Horizontal Coverage</b>	2 x 60°
<b>Total Amp Power</b>	4000 W
<b>Typical Distance</b>	-
<b>Options</b>	2 x PSE 215 or 2 x PSE 218
<b>Comments</b>	-

**VariLine** MUSICIANS, MOBILE DJ'S, CLUBS



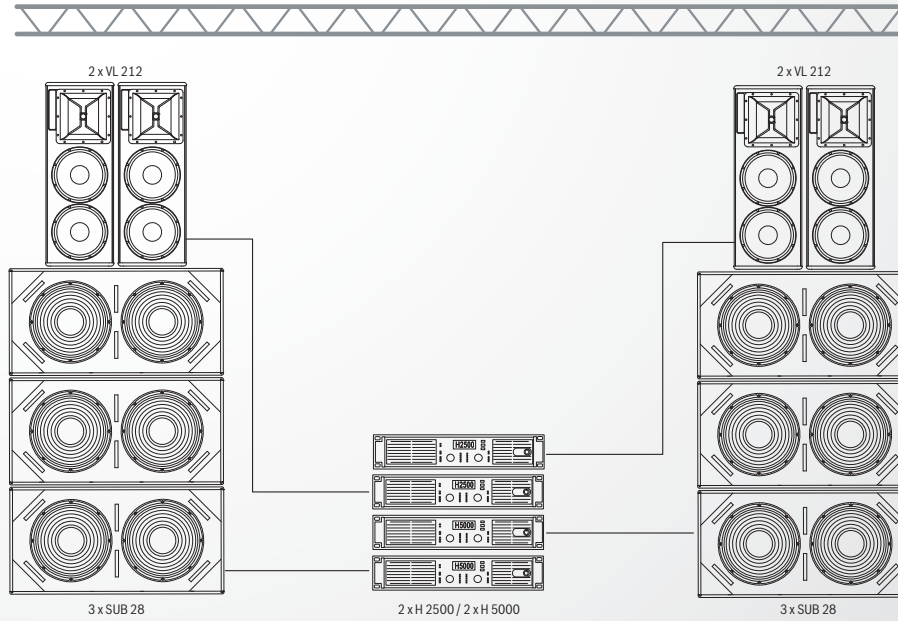
Configuration	Active 2-Way
<b>Cabinet Types</b>	2 x VL 122, 2 x PSD 215 or 2 x PSD 218
<b>Amplifiers</b>	internal
<b>Controllers</b>	integrated DSP
<b>Cables</b>	XLR + Speakon
<b>Accessories</b>	2 x VPM 1500
<b>Horizontal Coverage</b>	2 x 90°
<b>Total Amp Power</b>	4000 W
<b>Typical Distance</b>	-
<b>Options</b>	2 x PSE 215 or 2 x PSE 218
<b>Comments</b>	-

**VariLine** MUSICIANS, MOBILE DJ'S, CLUBS



Configuration	Active 2-Way
<b>Cabinet Types</b>	2 x VL 152, 2 x PSD 218
<b>Amplifiers</b>	internal
<b>Controllers</b>	integrated DSP
<b>Cables</b>	XLR + Speakon
<b>Accessories</b>	2 x VPM 1500
<b>Horizontal Coverage</b>	2 x 90°
<b>Total Amp Power</b>	4000 W
<b>Typical Distance</b>	-
<b>Options</b>	2 x PSE 218
<b>Comments</b>	-

**VariLine** HI-POWER PA SYSTEM

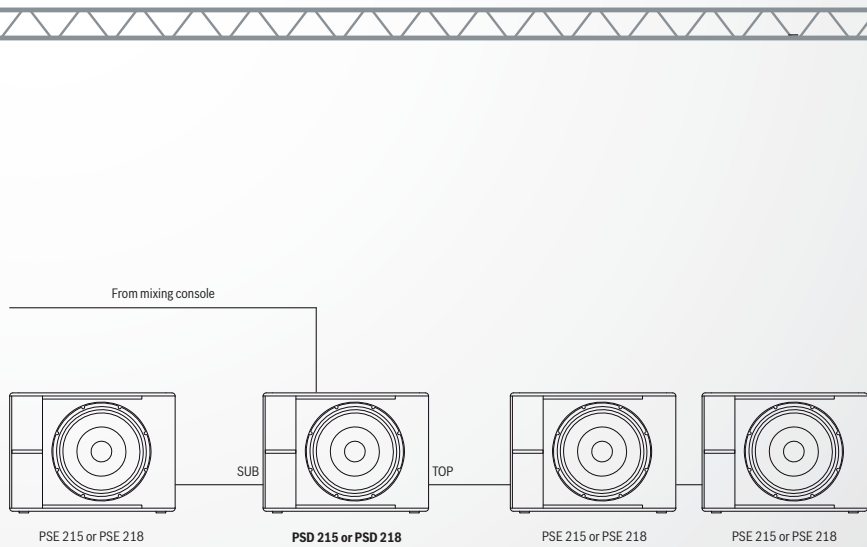


Configuration	Active 3-Way
<b>Cabinet Types</b>	4 x VL 212, 6 x SUB 28
<b>Amplifiers</b>	2 x H 5000, 2 x H 2500
<b>Controllers</b>	4 x RCM-26 Module
<b>Cables</b>	6 x 4-pole long, 8 x 4-pole short
<b>Accessories</b>	-
<b>Horizontal Coverage</b>	80° or 180° (rotatable Horns)
<b>Total Amp Power</b>	4 x 3000 W Sub (2.7 Ohms) 2 x 2500 W Mid (2 Ohms) 2 x 1450 W High (4 Ohms)
<b>Typical Distance</b>	-
<b>Options</b>	-
<b>Comments</b>	each Sub is switched to 2 x 8 Ohms, all cables 4-pole, conn. to Amp Output Ch. A



**PSD SPECIAL CONFIGURATION** APPLICATION GUIDE

**BASS-ARRAY**

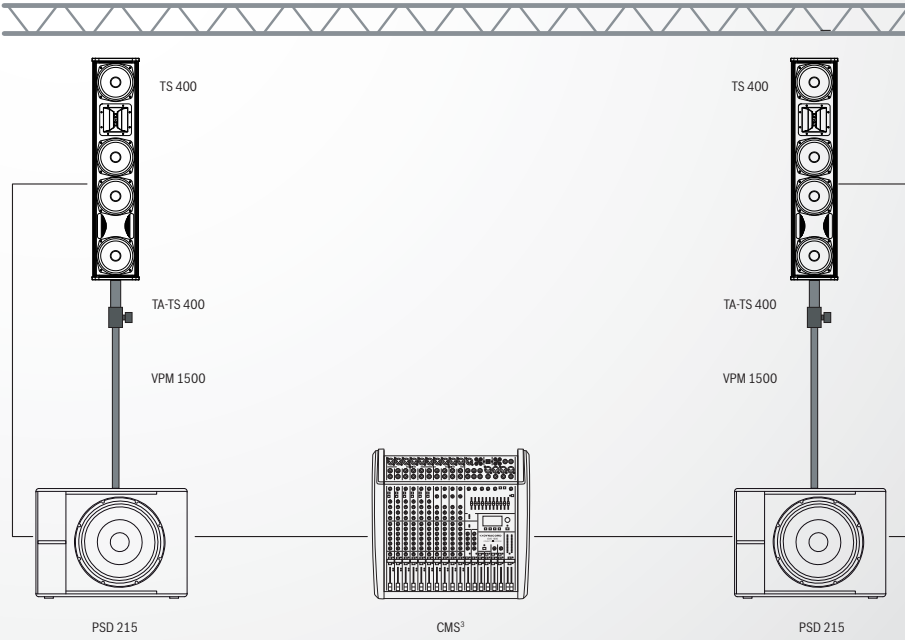


Configuration	Subwoofer
<b>Cabinet Types</b>	-
<b>Amplifiers</b>	internal
<b>Controllers</b>	integrated DSP
<b>Cables</b>	Speakon
<b>Accessories</b>	-
<b>Horizontal Coverage</b>	-
<b>Total Amp Power</b>	4000 W
<b>Typical Distance</b>	-
<b>Options</b>	-
<b>Comments</b>	SUB and TOP outputs identical driven



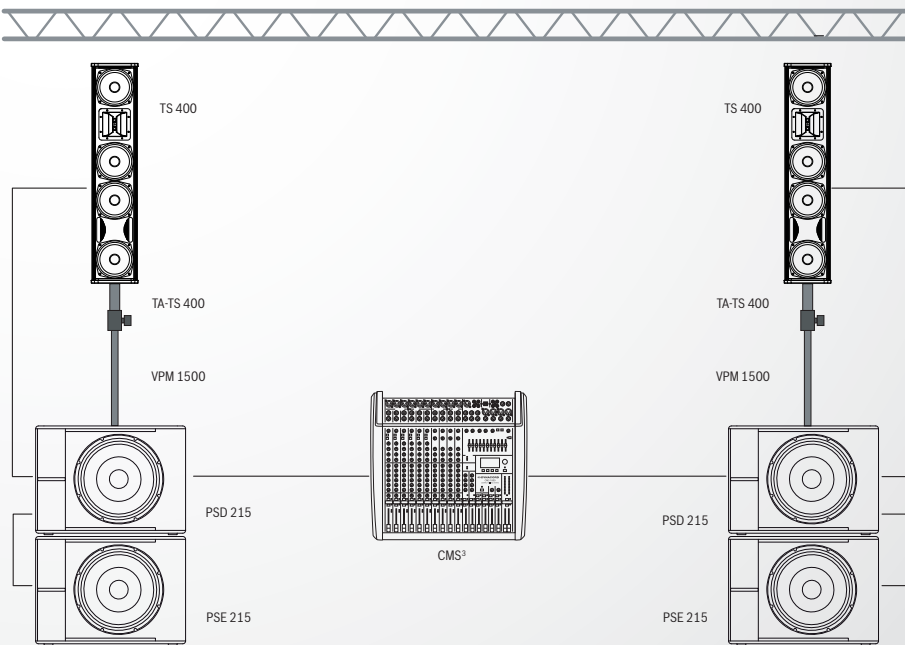
# Vertical Array System APPLICATION GUIDE

## VA 215 MUSICIANS, MOBILE DJ'S



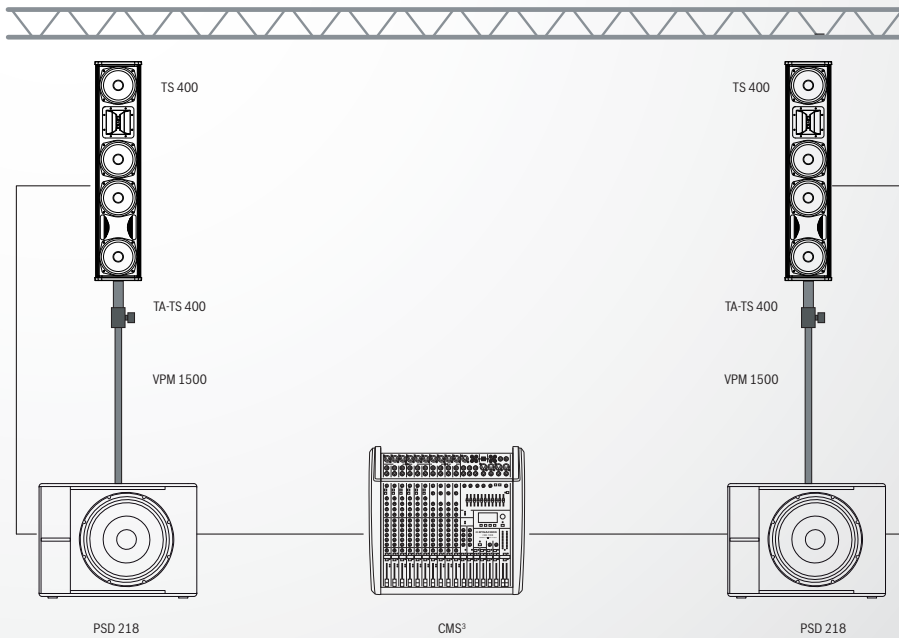
Configuration	Active 2-Way
<b>Cabinet Types</b>	2 x TS 400, 2 x PSD 215
<b>Amplifiers</b>	internal
<b>Controllers</b>	integrated DSP
<b>Cables</b>	XLR + Speakon
<b>Accessories</b>	2 x TA-TS 400 2 x VPM 1500
<b>Horizontal Coverage</b>	120°
<b>Total Amp Power</b>	4000 W
<b>Typical Distance</b>	25 - 30 m
<b>Options</b>	-
<b>Comments</b>	-

## VA 415 LIVE MUSIC, CLUBS



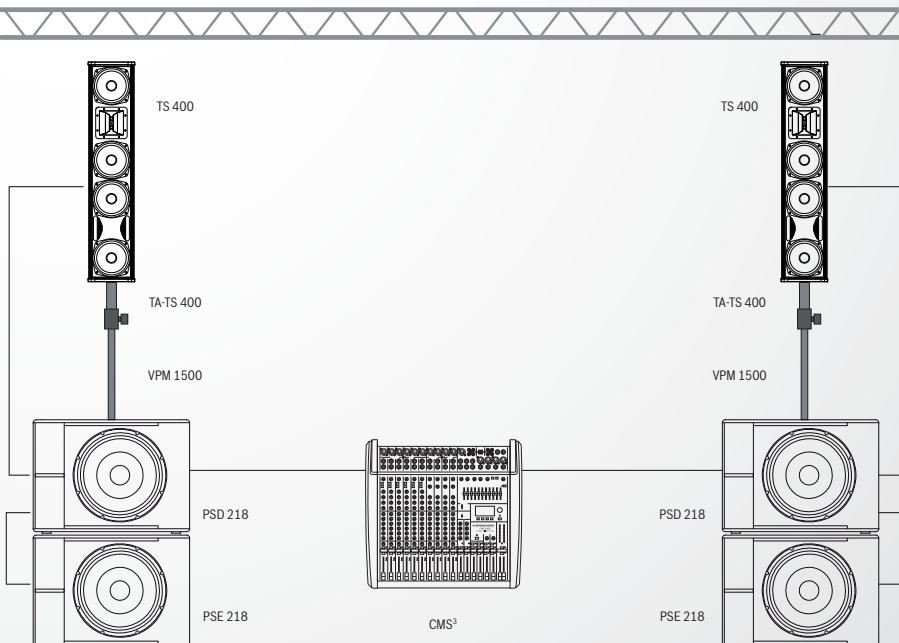
Configuration	Active 2-Way
<b>Cabinet Types</b>	2 x TS 400, 2 x PSD 215, 2 x PSE 215
<b>Amplifiers</b>	internal
<b>Controllers</b>	integrated DSP
<b>Cables</b>	XLR + Speakon
<b>Accessories</b>	2 x TA-TS 400 2 x VPM 1500
<b>Horizontal Coverage</b>	120°
<b>Total Amp Power</b>	4000 W
<b>Typical Distance</b>	30 - 40 m
<b>Options</b>	-
<b>Comments</b>	-

**VA 218** MUSICIANS, MOBILE DJ'S



Configuration	Active 2-Way
<b>Cabinet Types</b>	2 x TS 400, 2 x PSD 218
<b>Amplifiers</b>	internal
<b>Controllers</b>	integrated DSP
<b>Cables</b>	XLR + Speakon
<b>Accessories</b>	2 x TA-TS 400 2 x VPM 1500
<b>Horizontal Coverage</b>	120°
<b>Total Amp Power</b>	4000 W
<b>Typical Distance</b>	25 - 30 m
<b>Options</b>	-
<b>Comments</b>	-

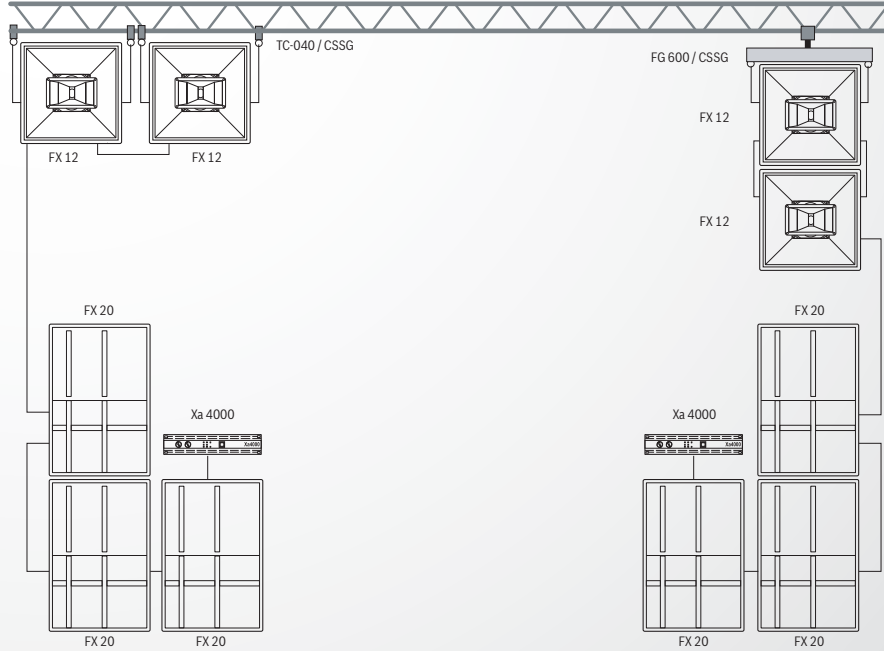
**VA 418** LIVE MUSIC, CLUBS



Configuration	Active 2-Way
<b>Cabinet Types</b>	2 x TS 400, 2 x PSD 218, 2 x PSE 218
<b>Amplifiers</b>	internal
<b>Controllers</b>	integrated DSP
<b>Cables</b>	XLR + Speakon
<b>Accessories</b>	2 x TA-TS 400 2 x VPM 1500
<b>Horizontal Coverage</b>	120°
<b>Total Amp Power</b>	4000 W
<b>Typical Distance</b>	30 - 40 m
<b>Options</b>	-
<b>Comments</b>	-

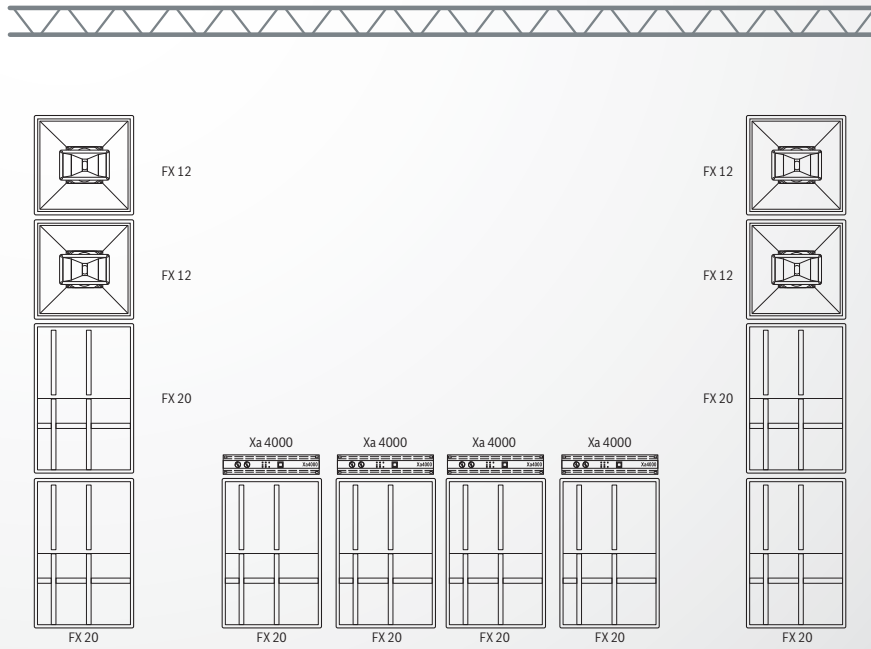
## Xa 2 APPLICATION GUIDE

### Xa 2 HI-POWER PA-SYSTEM, LIVE BANDS



Configuration	Active 2-Way
<b>Cabinet Types</b>	4 x FX 12 + 6 x FX 20
<b>Amplifiers</b>	2 x Xa 4000
<b>Controllers</b>	integrated
<b>Cables</b>	4 x 4-pole long, 2 x 4-pole short
<b>Accessories</b>	TC-04, CSST
<b>Horizontal Coverage</b>	2 x 160° or 80°
<b>Total Amp Power</b>	2 x 2000 W = 4000 W
<b>Typical Distance</b>	25 - 35 m
<b>Options</b>	FG 600 (Grid)
<b>Comments</b>	2 x FX 12 „splayed“ for wide coverage or „in-line“ for long distance

### Xa 2 HI-POWER PA-SYSTEM, MOBILE DJ'S

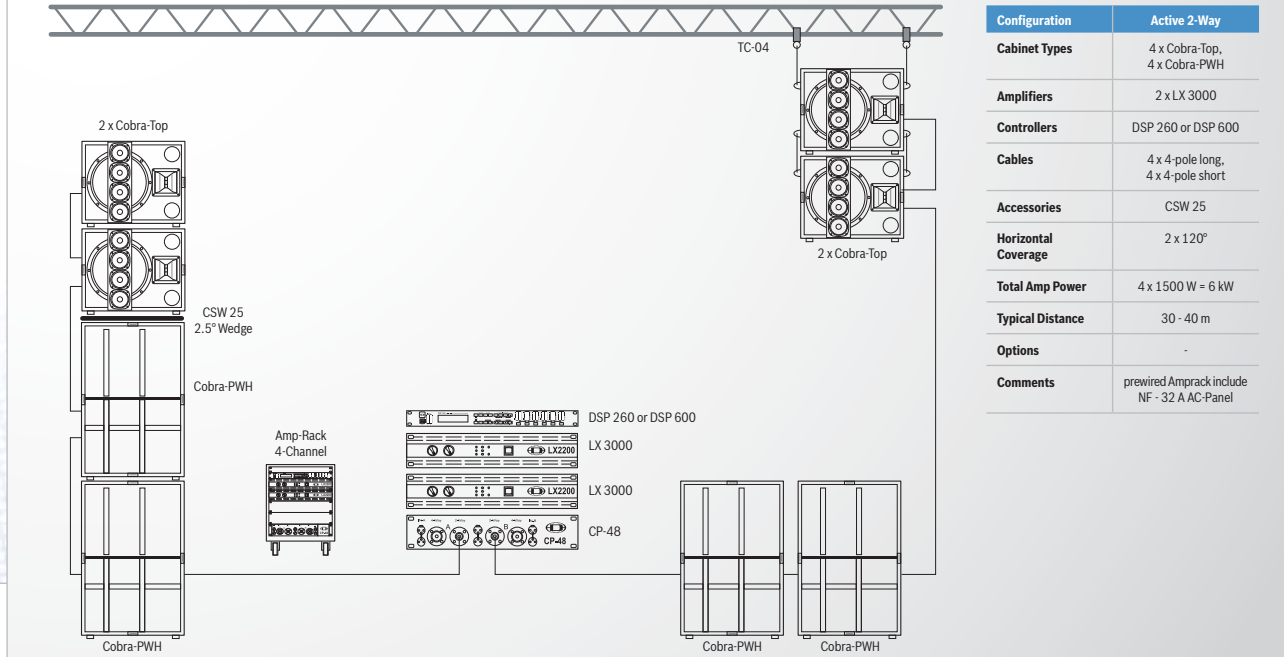


Configuration	Active 2-Way
<b>Cabinet Types</b>	4 x FX 12 + 8 x FX 20
<b>Amplifiers</b>	4 x Xa 4000
<b>Controllers</b>	integrated
<b>Cables</b>	6 x 4-pole long, 6 x 4-pole short
<b>Accessories</b>	-
<b>Horizontal Coverage</b>	2 x 80°
<b>Total Amp Power</b>	4 x 2000 W = 8000 W
<b>Typical Distance</b>	30 - 40 m
<b>Options</b>	-
<b>Comments</b>	1 x Xa 2 System per side

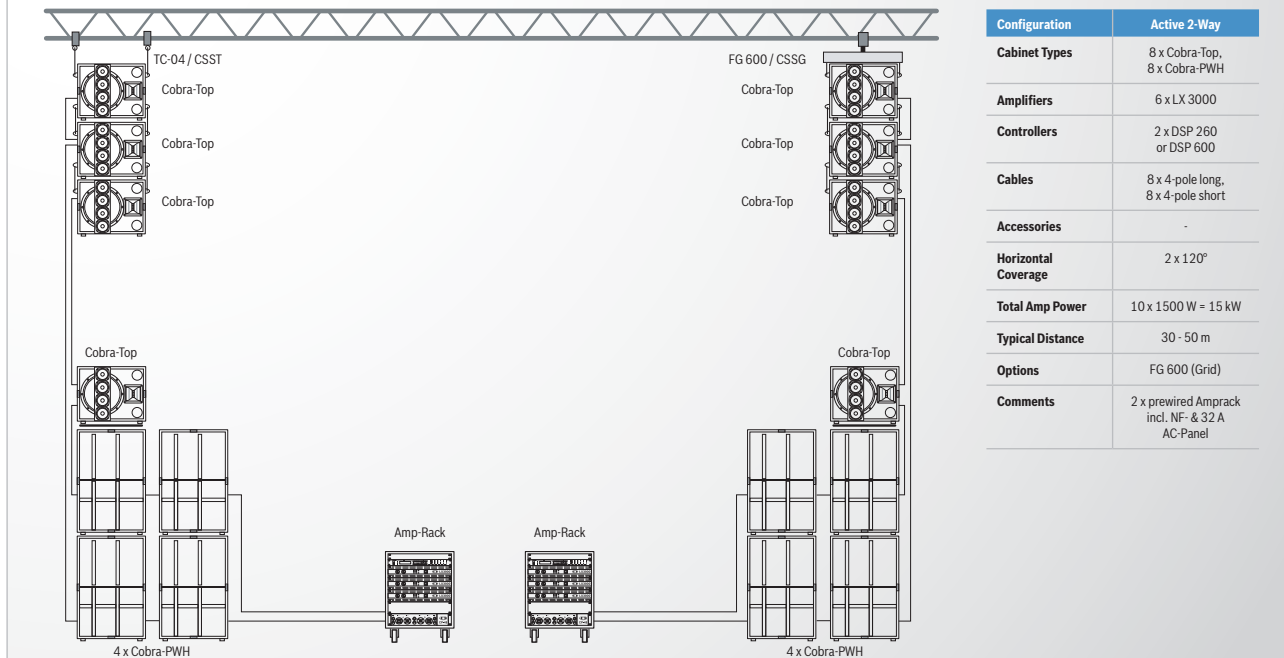


# COBRA-2 APPLICATION GUIDE

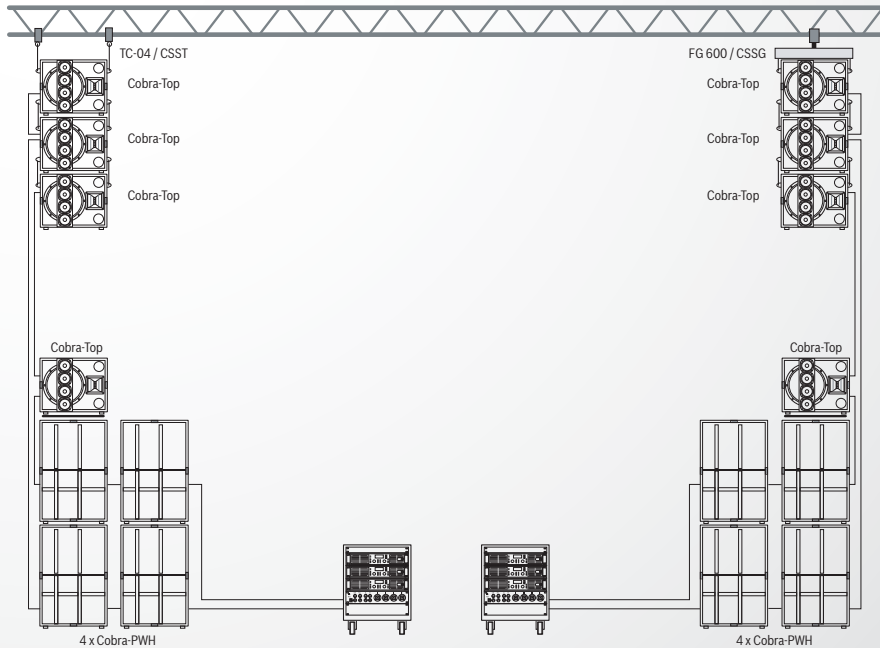
## COBRA-2 COMPACT LINE-ARRAY SYSTEM FOR SMALLER VENUES



## COBRA-2 COMPACT LINE-ARRAY SYSTEM FOR MID-SIZED VENUES



**COBRA-2** COMPACT LINE-ARRAY SYSTEM FOR MID-SIZED VENUES

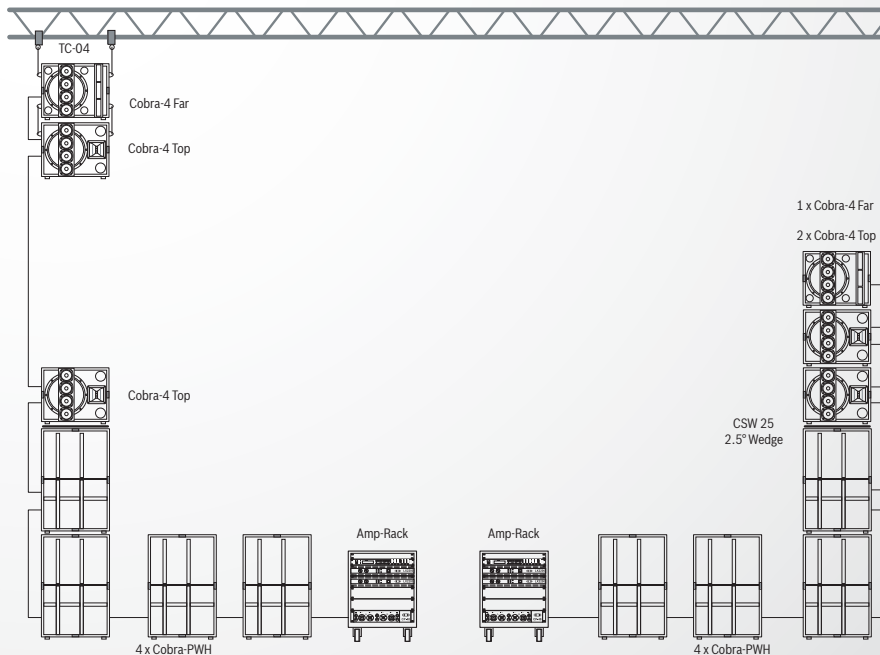


Configuration	Active 2-Way
<b>Cabinet Types</b>	8 x Cobra-Top, 8 x Cobra-PWH
<b>Amplifiers</b>	6 x H 2500
<b>Controllers</b>	6 x RCM-26
<b>Cables</b>	8 x 4-pole long, 8 x 4-pole short
<b>Accessories</b>	-
<b>Horizontal Coverage</b>	2 x 120°
<b>Total Amp Power</b>	12 x 2500 W = 30 kW
<b>Typical Distance</b>	30 - 50 m
<b>Options</b>	FG 600 (Grid)
<b>Comments</b>	2 x prewired Amprack



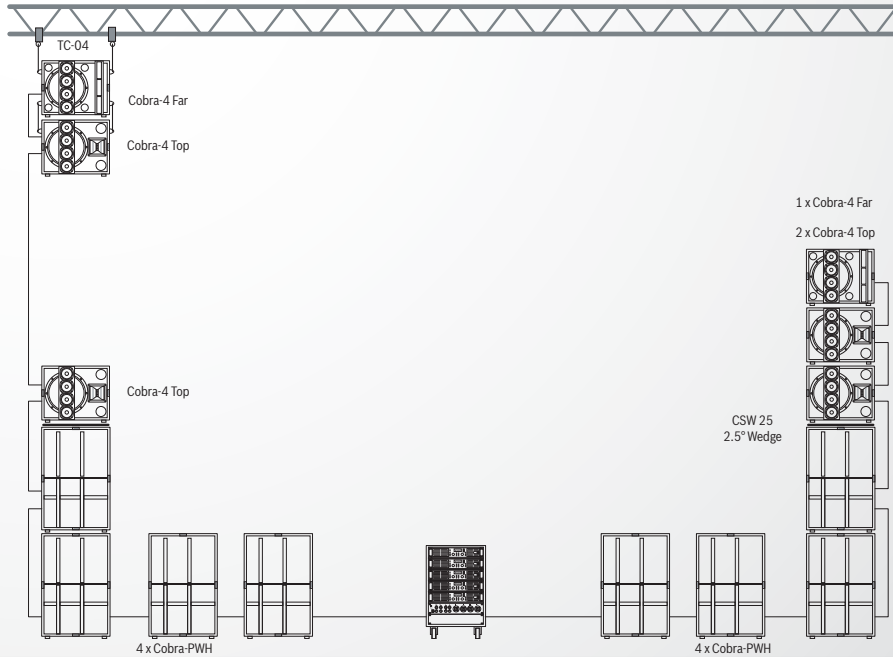
**COBRA-4** APPLICATION GUIDE

**COBRA-4** LINE-ARRAY SYSTEM FOR MID-SIZED VENUES



Configuration	Active 4-Way
<b>Cabinet Types</b>	2 x Cobra-4 Far, 4 x Cobra-4 Top, 8 x Cobra-PWH
<b>Amplifiers</b>	4 x LX 3000
<b>Controllers</b>	2 x DSP 260 or DSP 600
<b>Cables</b>	6 x 8-pole long, 8 x 8-pole short
<b>Accessories</b>	Rigging Straps CSST, CSSM
<b>Horizontal Coverage</b>	2 x 120°
<b>Total Amp Power</b>	2 x 2100 W, 6 x 1800 W = 15kW
<b>Typical Distance</b>	40 - 80 m
<b>Options</b>	-
<b>Comments</b>	2 x prewired Amprack incl. NF & AC-Panel

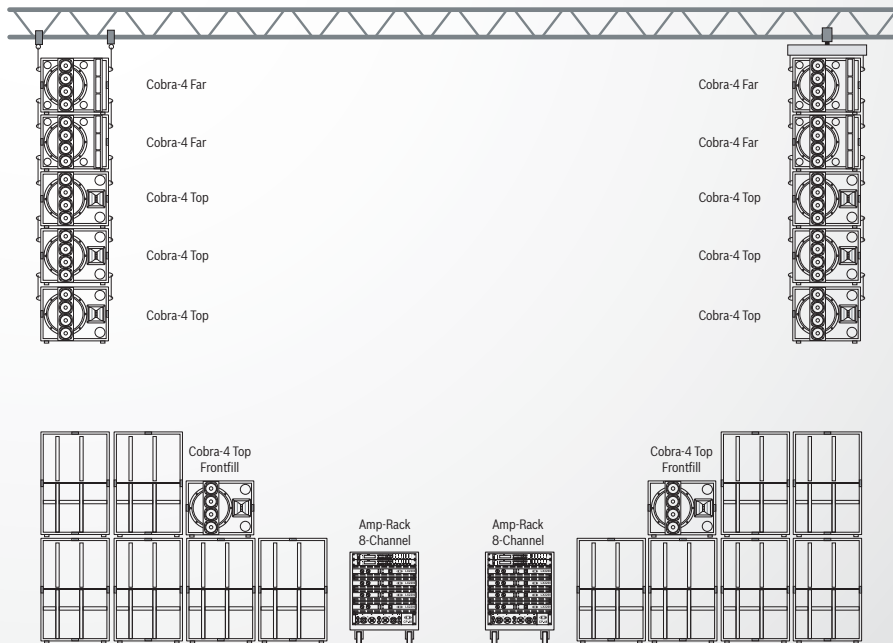
**COBRA-4** LINE-ARRAY SYSTEM FOR MID-SIZED VENUES



Configuration	Active 4-Way
<b>Cabinet Types</b>	2 x Cobra-4 Far, 4 x Cobra-4 Top, 8 x Cobra-PWH
<b>Amplifiers</b>	5 x H 5000
<b>Controllers</b>	5 x RCM-26
<b>Cables</b>	6 x 8-pole long, 8 x 8-pole short
<b>Accessories</b>	Rigging Straps CSST, CSSM
<b>Horizontal Coverage</b>	2 x 120°
<b>Total Amp Power</b>	10 x 2500 W = 25 kW
<b>Typical Distance</b>	40 - 80 m
<b>Options</b>	-
<b>Comments</b>	-



**COBRA-4** LINE-ARRAY SYSTEM FOR LARGER VENUES



Configuration	Active 4-Way
<b>Cabinet Types</b>	4 x Cobra-4 Far, 8 x Cobra-4 Top, 12-16 x Cobra-PWH
<b>Amplifiers</b>	8 x LX 3000
<b>Controllers</b>	4 x DSP 260 or DSP 600
<b>Cables</b>	12 x 8-pole long, 16 x 8-pole short
<b>Accessories</b>	-
<b>Horizontal Coverage</b>	2 x 120°
<b>Total Amp Power</b>	4 x 2100 W + 12 x 1800 W = 30kW
<b>Typical Distance</b>	40 - 80 m
<b>Options</b>	FG 600 (Grid)
<b>Comments</b>	System can be split into two separate Systems



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