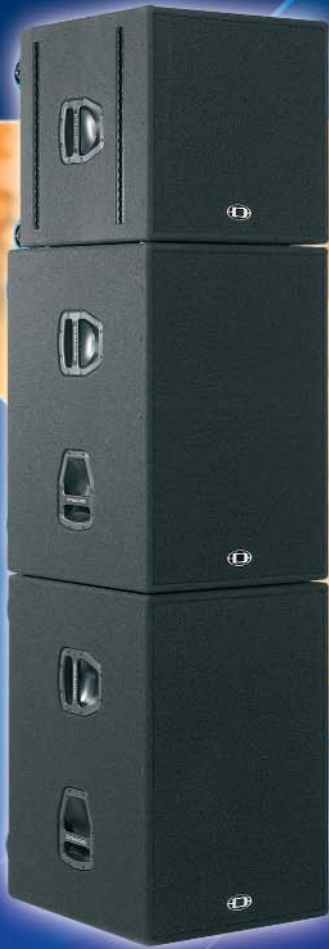


Xa[®]

SYSTEMS



 **DYNACORD[®]**

ENGLISH

BIGGEST BANG FOR THE BUCK !



PHILOSOPHY

In a world of over-abundance and mass production, quality, functionality and design are still decisive factors. We at DYNACORD develop and produce first-class products ('Made in Germany') that through practice-optimized details and well-considered solutions to the real problems of each application provide our users with only positive experiences, bringing them many years of pleasure in day-to-day operation. The highest possible quality of our products and the absolute satisfaction of our customers are our highest precepts.

Complete plug 'n' play audio systems have for many years been an ever present part of the DYNACORD sound reinforcement range. With the new Xa-2 systems, once again DYNACORD is setting the highest standards in audio performance, reliability and price.

To obtain the highest possible on-axis sound pressure levels, complete horn-loaded systems remain the first choice. Typical Top 40 gigs, open air events in the cities and mobile DJ applications requiring up to 1000 m² of coverage and 40 metre throws are the ideal applications for the new Xa-2 systems from DYNACORD.

WELCOME TO THE PRESSURE

High-quality neodymium components combined with new Constant Q horns and patented planar waveguide bass horns deliver maximum sound pressure and superlative audio performance. The active 2-way Class H system power amplifiers with switching power supplies and audio processors as well as all the requisite protective circuits are capable of driving a very wide range of rig configurations with absolute reliability. With VCTP safety circuits in the cabinets — the 'personal bodyguards' of the loudspeakers the widest possible dynamic range is combined with the highest degree of security.

Simple transportation, fast setting-up times and easy cabling are just some of the important practical advantages of DYNACORD's complete systems. A wide range of accessories, such as flying frames, rigging wires and tilting apparatus provide simple and TÜV-approved solutions to complex, vexing and otherwise time-consuming problems when setting-up in awkward venues.



The components of the Xa-2 can be quickly and easily configured to cover an enormous range of different sound reinforcement applications in venues of all shapes and sizes without any need for complex calculations, controller adjustments and limiter settings.

If extreme sub levels are needed for an open air DJ event, just add another sub on each side! If the brass band in the beer tent wants ultra-wide coverage but less bass, just use one sub and two angled tops per side! And if a Top 40 band suddenly finds itself playing to an audience of 4000, the same system amp can drive three subs and two tops per side — not to mention additional front- or side-fill enclosures — without even breaking sweat!

- **Top 40 Indoor/Outdoor Live Events**
- **High-Power Mobile DJ Events**
- **High-Quality Corporate Events**
- **High-Power Speech Reinforcement**
- **Multimedia Events**
- **Theatre Applications**
- **Rental Business**
- **Fixed Installations**

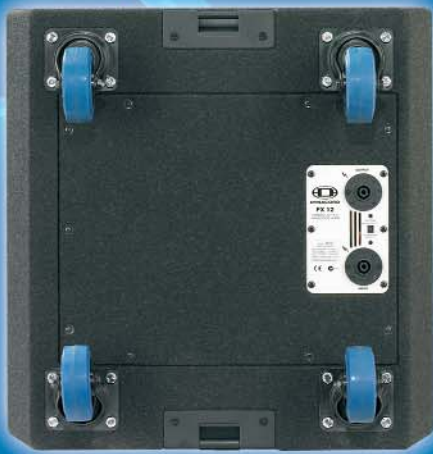


● FX12



The FX 12 is conceived as a fully horn-loaded and coaxial 2-way high-power top and covers the frequency range from 100 Hz to 19 kHz with a maximum sound pressure level of 134 dB / 1m. The HF range from 1 kHz upwards is reproduced by a Neodymium ND 6-8 driver with a 3" voice coil and a CDH 8040-14 Constant Q horn, whilst coverage in the mid-range from 100 Hz to 1 kHz is provided by a neodymium ND 12A driver with a conical midrange horn.

Extremely low distortion and the minimum of comb-filter effects, whether multiple tops are stacked or flown, are decisive arguments in favour of conical horns. A fully electronic voice-coil tracking protection system provides permanent monitoring of the operating state of the individual loudspeakers, and only in the event of overload is the power gently reined back to safe values. The result is the maximum possible dynamic range combined with the highest operational security.



The enclosure is constructed from multi-ply 15mm poplar plywood and is covered with an extremely hard-wearing needle felt. Secure protection for the front of the enclosure is provided by a powder-coated metal grille with an acoustic foam front. Handles at the side and four large rollers on the back afford extra handling comfort.

Flying rails and fittings for load straps are integrated as standard. Foolproof connectivity is provided by the 4-pin Speakon cables with system pins that permit reliable communication between the FX 12 and the Xa 4000 system power amplifier, whether it is connected directly or looped through the FX 20 subwoofer.



CONNECTION PANEL

If the power amp is driving the FX 12 as a single cabinet (e.g. for high quality speech applications) using standard pin-assignments, all you need do is move the sliding switch from "System" (pins 2+/2-) to "Normal" (pins 1+/1-) and the pins at the socket will be correctly configured.

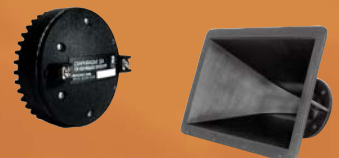


FLYING RAILS

The Acra flying rails provided as standard, combined with the CSST flying wires available as accessories, allow the FX 12 to be flown securely in the truss. Various detents are provided, so that exactly the right degree of tilt can be obtained. Multiple cabinets can be connected using CSSM flying wires equipped with double studs on each side.

HF COMPONENTS

The CDH 8040-14 80° x 40° Constant-Q high frequency horn is equipped with a ND 6-8 Neodymium driver reproducing the frequency range above 1 kHz and is mounted coaxially in the Conical Waveguide midrange horn.



FX20

To achieve the highest possible sound pressure levels, the FX 20 is conceived as a planar waveguide bass horn and armed with an EVX 180B 18" woofer with a high power-handling capacity. The frequency range from 30 Hz to 150 Hz is reproduced with a maximum sound pressure level of 132 dB/1m. Two of these planar waveguide subwoofers deliver up to 138 dB/1m per side and provide an extremely dry and deep bass foundation for the Xa-2 system.

The 18" woofer, like the top, is afforded precise protection against thermal overload by a fully electronic voice-coil tracking system and even extreme power peaks are reproduced precisely and powerfully without any dynamic loss.

The enclosure is constructed from multi-ply 15mm poplar plywood and is covered with an extremely hard-wearing needle felt. Two sub-woofers achieve a stacked height of 180 cm, permitting the overhead mounting of the FX 12 tops. The same 4-pin Speakon connectors are used for the sub-woofers as the tops.

The sub-signal delivered by the system power amplifier reaches the sub-woofer via pins 1+/1- and the midrange/HF signal is looped through to the tops on pins 2+/2-. Four generously dimensioned rubber feet on both the bottom and sides are provided to accommodate different set-up configurations and ensure high stability when stacking. In all, six handles and four robust rollers on the rear permit easy handling and safe transport.



HANDLES AND ROLLERS

On the rear of both the FX 12 and the FX 20, you will find four heavy-duty rollers. Two handles on the tops and six in all on the sub-woofers facilitate transportation and ensure safe handling when stacking the cabinets.



THREADED ADAPTER

Additional full-range cabinets for front- or side-fills or smaller tops can be aimed and securely mounted on top of the FX 20 to

save space using the optional PCL 880 and PCL 1500 threaded poles.

SUB COMPONENTS

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



Xa4000



The system power amplifier, the Xa 4000, is designed as a two-way power amplifier (SUB-TOP) and can be set up in a side-oriented configuration — for short cable runs to the cabinets — or mounted with similar devices in the rack. Employing Class H technology, the 2U system power amplifiers boasts a state-of-the-art switching power supply and weighs a mere 8.25 kg. The output power is 1100 W in the SUB channel and 900 W in the TOP channel, in each

case into 4 ohms, however up to three tops and/or three sub-woofers can be driven with extreme reliability and economy. All the necessary signal processing — including equalization, LPN filter, lo-cut filter and an active crossover at 140 Hz with an 18 dB/octave slope in a modified Butterworth configuration — is on board, as well as separate level controls on the front for the SUB and TOP to allow individual tailoring of the output to the venue or style of music.

The loudspeaker connection is provided by a 4-pin Speakon system socket with pins 1+/1- feeding the SUB and pins 2+/2- the TOP in addition to the 4-pin system wiring. Two additional output sockets with

‘standard’ wiring on pins 1+/1- permit full-range enclosures for side-fill or front-fill applications to be driven from the TOP-OUT as well as central bass speaker configurations.



APPLICATIONS

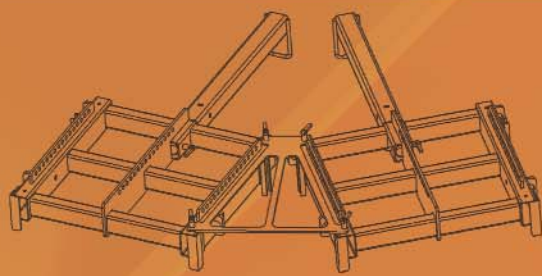
The basic Xa-2 setup with two additional FX 20 sub-woofers for mobile DJ events. Subs are arrayed horizontally for a homogeneous near field and powerful targeted bass reproduction in the far field.



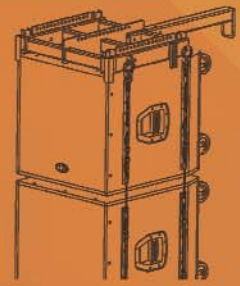
The Xa-2 with only two sub-woofers but two additional FX 12 tops being flown. For high-quality speech reproduction or musical genres in which the attainment of maximum sound pressure levels in the LF range is not a high priority.



Maximum configuration driven by an Xa 4000 system power amplifier with three subs and two tops per side for typical Top 40 events and venues in big city halls or medium-sized open air concerts. For very big events, where throws in excess of 40m are required, a complete Xa-2 system per side can be used without any problems.



By using the FG 600 flying grid, which is available as an optional accessory, FX12 tops (and other 600 mm wide cabinets like 'Cobra') can be flown safely and quickly in the truss – or else mounted on “genies” without any problems. With the SE 600 retractable rigging strap extension and a rigging strap, the whole wing of tops can be aligned easily.



SPECIFICATIONS

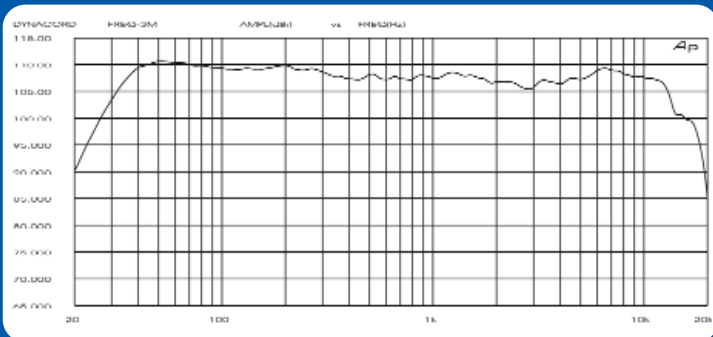
Specifications:	FX 12	FX 20
Order #	113004	113003
Cabinet	Mid-Hi Cabinet	Subwoofer
Configuration	Coaxial Conical Horn	Planar waveguide basshorn
Operating Mode	Passive	-
Nominal Impedance	8 Ohms	8 Ohms
Rated Power RMS	350 W	600 W
Program Power	700 W	1200 W
SPL 2.83V / 1m 1W/8 Ohms	106 dB	101 dB
Max SPL 1m (calculated)	134 dB	132 dB
Frequency Response (-10 dB) measured with Xa4000	120 Hz -19 kHz	30 Hz -150 Hz
Coverage Angle 1 kHz (-6dB)	H 80° V 40°	-
Recommended Active Crossover		
Frequency to Subwoofer	140 Hz / 18 dB/Oct. Butterworth	140 Hz / 18 dB/Oct. Butterworth
Passive Crossover Frequency	1000 Hz	-
Voice Coil Tracking Protection	Separate circuits for LO-MID and HIGH	Yes
Components	HIGH: ND6-8 / CDH 8040-14 / MID: ND 12A	EVX 180 B
Connector Wiring	4-pole, NORMAL 1+/1-, SYSTEM 2+/2-	4-pole 1+/1-
Connector Model	Speakon 2 x NL4MPR	Speakon 2 x NL4MPR
Dimensions	600 x 610 x 814 mm	610 x 905 x 814 mm
Shipping Weight	-	-
Net Weight	48 kg	47,5 kg
Enclosure Material	Poplar plywood 15 mm	Poplar plywood 15 mm
Finish	Heavy-duty black carpet	Heavy-duty black carpet
Grille	Acoustic foam, powder coated steel	Acoustic foam, powder coated steel
Handles	2	6
Rigging tracks	4	-
Webbing strap points	2	-
Castors	4	4
Warranty	36 months	36 months

Specifications: Xa 4000

	SUB			TOP		
Load Impedance	2 Ohms	4 Ohms	8 Ohms	2 Ohms	4 Ohms	8 Ohms
Maximum Midband Output Power	1800 W	1100 W	600 W	1600 W	900 W	500 W
THD = 1%, 80Hz SUB, 1kHz TOP, Single Channel						
Rated Output Power	----	1000 W	500 W	---	800 W	400 W
THD < 0.1%, 20 Hz-140 Hz SUB, 140 Hz-20 kHz TOP Single Channel						
Maximum RMS Voltage Swing	78 V					
THD = 1%, 80Hz SUB, 1kHz TOP						
Power Bandwidth TD = 1%, ref. 1kHz, half power @ 4 Ohms	10 Hz ... 50 kHz					
Voltage Gain ref.1kHz	37.3 dB					
Input Sensitivity at rated output power, 1kHz	0 dBu (0.775 V rms)					
THD at rated output power, MBW = 80kHz, 1kHz	< 0.05%					
Maximum Input Level	+22 dBu (9.76 V rms)					
Input Impedance active balanced	20 kOhms					
Damping Factor 1kHz	> 300					
Slew Rate	30 V/μs					
Signal to Noise Ratio Amplifier A-weighted	102 dB					
Output Stage Topology	Class H					
Power Requirements	240, 230, 220, 120V or 100V 50 Hz ... 60 Hz (factory configured)					
Power Consumption at 1/8 max. output power @ 4 Ohms	850 W					
Protection	Audio limiters, High temperature, DC, HF, Back-EMF, Peak current limiters, Inrush current limiters, Turn-on delay					
Cooling	Front-to-rear, 3-stage-fans					
Ambient Temperature Limits	+5°C ... +40°C (40°F ... 105°F)					
Safety Class	I					
Dimensions (W x H x D), mm	483 x 88.1 x 384					
Weight	8.25 kg (18.2 lbs)					
Optional:						
Rear-rackmount 15,5"	112930 (RMS15-CL)					
Rear-rackmount 18"	112933 (RMS18-CL)					

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 SUBJECT TO CHANGE WITHOUT PRIOR NOTICE!

Frequency Range Diagram - Xa-2 System



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