EDGE

POINT SOURCE SOLUTION

srt sound research team

THE ART OF SOUND

2002
PROEL debuts in the field of professional concert systems and starts researching and designing intelligent and "global" solutions for sound reinforcement.

Objectives
PROEL's aim is to achieve state-of-the-art high quality systems and to create solutions for the most demanding sound reinforcement requirements. In order to achieve this, PROEL brings onboard a group of technicians and professionals with years of experience in designing sound systems and using them in live applications.

2007
In a matter of a few years, a group of few brave technicians and specialists with experience in universities and laboratories, but also behind mixing desks and on concert stages, became the PROEL SRT – Sound Research Team.

2008
When PROEL Group aquired the renowned pro-audio brand TURBOSOUND, the resources of PROEL's R&D lab, and particularly those of its SRT, merged with those of the lab in Partridge Green, in the UK.

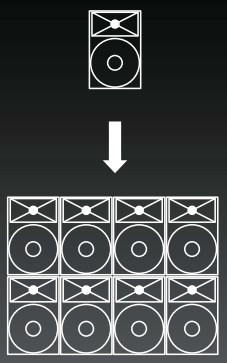
Presently, the PROEL Sound Research Team represents PROEL's spearhead in the field of professional sound reinforcement systems and includes loudspeaker system designers, analogue electronics specialists, digital system designers, integration experts and live sound engineers.
Professional systems designed by the PROEL Sound Research Team feature the most advanced, state-of-the-art technologies: powerful ultra-light transducers, efficient class-D amplifiers, integrated digital signal processors, high-end analogue electronics and convenient, efficient wiring and suspension systems. All these features contribute to the achievement of intelligent sound reinforcement solutions that provide excellent musical sound, high quality, ease of use and versatility.

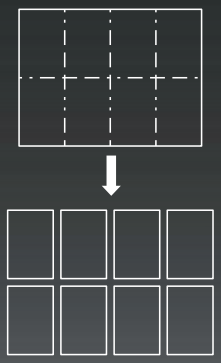
Results
• the EDGE Series point source systems and auxiliary and monitoring systems;
• the AXIOM Series vertical array systems, conceived to combine quality sound and accurate reproduction with competitive prices and easy-to-use features.

Through these years of fast and constant growth, AXIOM and EDGE professional speaker systems have been used to support great artists in a very wide range of applications, always ensuring the success of the event and collecting recognition and praise from professionals in the field.

PUSHING THE SENSES

The EDGE Series consists of medium and highly directive loudspeakers designed for the professional market. Thanks to the combination of valuable, superior performance components and state-of-the-art design techniques, the EDGE Series stands out for sound quality, high efficiency and reliability. The EDGE Systems were designed to achieve superior versatile performance both in live concerts and permanent installations, while maintaining simplicity of use. New concepts and unconventional ideas together with practical and safe mechanical solutions applied to traditional array systems will allow you to suspend your array rapidly for live applications and will guarantee flexible and safe permanent installations.



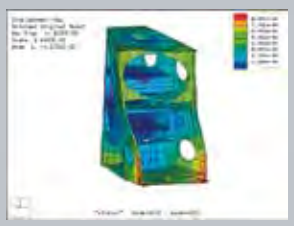


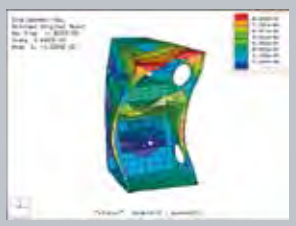
EDGE Series loudspeaker systems (EDGE 212P and 218SP) dedicated to large arrays have been designed not focusing on the performance of each single element, but on the array as a whole. Thanks to the directivity control and to the acoustic pressure level that each element can provide, the scalability toward smaller-dimensioned systems is nonetheless guaranteed. As a matter of fact, while designing the array with EDGE 212Ps, directivity can be shaped with a good degree of freedom both on the horizontal and on the vertical level.

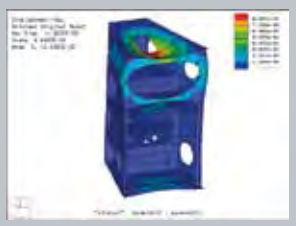
The transducers employed in the EDGE Series enjoy the features of the best available technologies. The advantages of coaxial reproduction, which has been used in several of the EDGE systems, increases the technological content of these products. In designing the transducers we paid special attention to power handling level and to sound quality. For example, the waterproof and carbon fibre-reinforced cones ensure long-term reliability in any kind of venue and the very strong magnetic systems we chose yield damping and good excursion control. In particular, the 21" woofer with its double layered magnet features an undoubtedly uncommon BL value equal to 34 T/m. Among the auxiliary features of the transducers, the Double Silicon Spider (DDS) grants exceptional elastic retention capacity and controls the cone movements with increasing power in case of peaks. The moving coil wound in multiple layers inside and outside the former (Interleaved Sandwich Voice Coil), doubles up the metal-metal surface of heat radiation and significantly reduces power compression. The flux demodulation devices (SDR, DDR) used on most of the transducers allow the distortion to be reduced especially in the mid range and grant an extraordinary control of over-excursion.

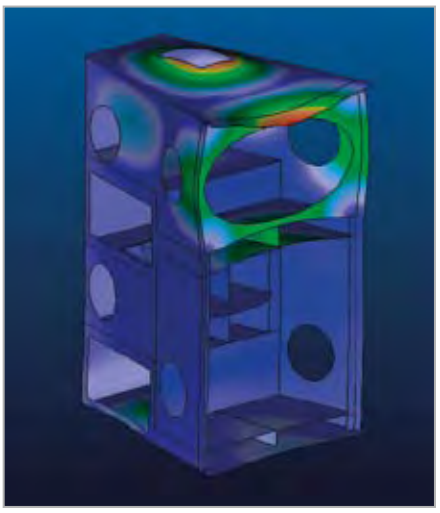
FEM analysis

The work put into the optimisation of the EDGE System cabinets produced a paper presented at the 116th AES convention held in Berlin in 2004: "Analysis and minimization of unwanted Resonance in Loudspeaker Systems via FEM techniques". Thanks to the minimisation of structural resonance, all the EDGE Systems grant superior sound quality even at very high pressure levels.



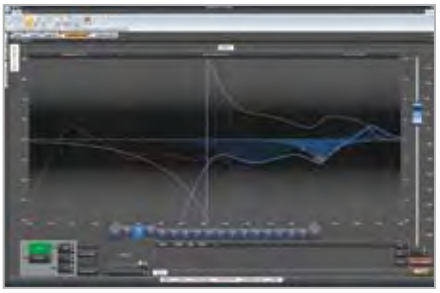






Audio Suite Remote Control Software

Audio Suite is the new remote control software for Powersoft amplifiers, and particularly for those in the K Series fitted with optional KDSP and KAESOP cards. Audio Suite follows two working modes: offline and online. When working offline, the user can configure the system before connecting to a network. Switching to the online mode, it is possible either to send or to recall configurations by connecting to the network. Ethernet protocol ensures a swift data exchange between every amplifier and the computer.



EDGE212P

- High-efficiency modular array system
- Coaxial driver on an asymmetric wave-guide
- Integrated Fly-Track

The **EDGE212P** is a 3 way, high-efficiency horn-loaded system. The mid-bass section is equipped with two 12" loudspeakers in parallel and coupled on the same wave guide horn. An elliptic-spheroid wave guide houses a special 2" compression driver, which is internally divided into two sub-systems: a 4" annular diaphragm reproduces mid-range frequencies, while the very high frequencies are reproduced through a passive filter by a 2" plastic film diaphragm co-axially mounted to the former. The wave guides grant an excellent directivity control which is kept constant from 600Hz upwards.

This feature allows multiple EDGE212Ps to be combined in a coherent way even in very large arrays, distributing the audio energy in a uniform way over the listening area. The wave guides of the EDGE212P are also tilted downwards by 5°, in order to create more rational arrays in suspended configurations. Nonetheless, whenever the system cannot be suspended, the down-tilt aids in the coverage of the listening area. The result is predictable coverage, a good audio balance across the whole array once installed, well distributed energy and a homogenous frequency response that cuts down many of the problems traditionally associated with large loudspeaker arrays, such as the "point source" type. All these features improve the fidelity and intelligibility even with highly reverberant conditions.

EDGE218SP

- Array flyable bass unit
- Highly damped enclosure
- Integrated Fly Track

The flyable bass unit **EDGE218SP** complements EDGE212P in the reproduction of low frequencies when the whole system needs to be flown. As its dimensions match those of the EDGE212P system and they share the same suspension system, EDGE 218SP can be easily combined in arrays whatever the layout of the mid-high range and of the bass range modules. EDGE218SP is a direct radiating unit equipped with two 18" speakers and reproduces high impact low frequencies ranging between 45 and 130Hz.

The enclosure has been designed to be highly damped, in order for the system to have a larger active radiation surface in the space available, thus obtaining the mutual combination effect between several units composing an array. This extends the bass response and avoids the confused audio effects generally associated with large bass arrays. For these reasons EDGE218SP system is at its best in multiple units composing large arrays.

EDGE SW121P

- Direct radiating bass unit
- 21" woofer with 5.3" four layer ISV voice coil,
- Highly damped enclosure

SW121P 21" direct radiating subwoofer completes bass response with an impressive excursion control and high power handling capability. SW121P is designed to work at 1500 W (AES) continuous power and can handle peaks 6 dB higher than that (up to 6000 W) without damage. Because of its heavy-duty DSS (Double Silicon Spider) suspension system, its double demodulating ring (DDR) and its over-damped housing, SW121P can provide a tremendous amount of defined and controlled low frequency energy. An amplified version is also available (SW121A).

EDGE15CXPB

- Coaxial monitor with a 15" woofer 4" voice coil
- Low profile, ideal for television and theatre applications
- Full range or bi-amp modes

The monitor **EDGE15CXPB** is a highly efficient 2-way low profile system. The bass frequencies are reproduced by a high excursion 15" woofer with a 4" voice coil. The woofer is equipped with a copper ring on the pole piece to achieve the lowest distortion in the vocal range. A small spherical wave guide, housed coaxially in the magnet assembly, loads a 1.5" neodymium-magnet, titanium-diaphragm compression driver that delivers a 65° symmetric coverage for 1.4kHz upwards. The EDGE15CXPB monitor system is equipped with a superior-performance high-quality passive filter.

The EDGE15CXPB can be internally switched to Bi-Amp operation and driven by the DSO480 digital processor using the appropriate preset. The high-performance coaxial transducer yields even timbre balance and clear intelligibility even at extremely high power levels. Moreover, the compact shape of the monitor gives it a discrete presence on stage, which is a very important feature especially for broadcast performances. EDGE15CXPB can also be employed as a reinforcement system for front-fill or down-fill, or it can be stacked with, for example, the EDGE121SP, to create a drum-fill.

EDGE12CXP

- Coaxial monitor with a 12" woofer 3" voice coil
- Low profile, ideal for television and theatre applications
- Full range or bi-amp modes

Monitor **EDGE12CXP** is a high-efficiency low profile 2-way system. Bass frequencies are reproduced by a high-excursion 12" woofer with a 3" coil equipped with a copper ring on the pole piece to achieve the lowest distortion in the vocal range. A spherical wave guide, housed coaxially in the magnet assembly, loads a 1.5" neodymium-magnet, titanium-diaphragm compression driver that delivers a 65° symmetric coverage for 1.4kHz upwards.

The EDGE12CXPB monitor system is equipped with a superior-performance high-quality passive filter. The EDGE12CXPB can be internally switched to bi-amp operation and driven by the DSO480 digital processor using the appropriate preset. The high-performance coaxial transducer yields even timbre balance and clear intelligibility even at extremely high power levels. Moreover, the compact shape of the monitor gives it a discrete presence on stage, which is a very important feature especially for TV broadcast performances. EDGE12CXPB can also be employed as a reinforcement system for front-fill or down-fill, or it can be stand-mounted with, for example, the EDGE121SP, to create a drum-fill.

EDGE8CXPB

- Compact speaker system with a symmetric coverage of 85°
- Co-axial design
- FEA computer modelled horn profile

The **EDGE8CXPB** is a versatile loudspeaker system in very compact enclosure. The custom-made co-axial speaker has been developed by the PROEL R&D laboratory with the aim of getting the best performance out of an 8" woofer combined with a 1" driver. The woofer features an ISV (Interleaved Sandwich Voice) Coil and a die-cast basket with double ventilation designed to improve heat dissipation and thereby reduce power compression.

The high frequency compression driver provides better excursion control and cuts down distortion through the use of ferro-fluid. EDGE8CXPB mounts a 12dB/oct passive crossover with PTC electronic protection to ensure high reliability in any condition. A black (EDGE8CXTB) or white (EDGE8CXTW) version featuring 100V constant voltage line transformer is also available.

EDGE25PB

- WTW configuration with a spherical wave-guide
- Easily configurable in small arrays
- FEA computer modelled horn profile

The **EDGE25PB** is a 2-way, full range passive system featuring passive crossover and PTC tweeter protection. Designed for near-field applications such as television, stage front, lectures, theatres, etc., the system features two 5.25" woofers and a SWGH (Spherical Wave Guide Horn) loaded dome tweeter in a WTW configuration.

The trapezoidal cabinet is asymmetric for combination into small arrays. High angular dispersion, homogenous coverage and high sensitivity stand out among the system features. Parallel configurations yield better results thanks to the 16 Ohm impedance of the speakers. A white version is also available (EDGE25PW), together with a black (EDGE25TB) or white (EDGE25TW) version featuring 100V constant voltage line

EDGE112SP

- Direct radiating bass unit
- 12" woofer with a 3" ISV voice coil
- Compact cabinet

The **EDGE112SP** subwoofer features a 12" woofer with a 3" Interleaved Sandwich Voice coil. The die-cast basket with double ventilation has been designed to grant maximum heat dissipation and reduce power compression. Mechanical excursion is controlled by a DSS (Double Silicon Spider) system, which guarantees system linearity.

The EDGE112SP subwoofer can handle extremely high power (400 W AES) for both indoor or outdoor applications. The frequency response reaches down to 40Hz with a 125dB maximum SPL. This model perfectly complements satellites EDGE8CXP and EDGE25P. We recommend use of ASO25 Active System Optimiser, or of DSO480 Digital System Optimiser for complete system configuration. The ideal frequency cut for the EDGE112SP ranges from 125Hz to 160Hz.

OPTIONAL ACCESSORIES

KPTED1218

AC180

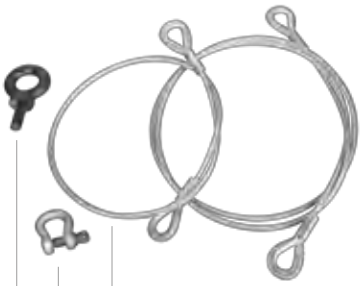
AC172E

AC172P

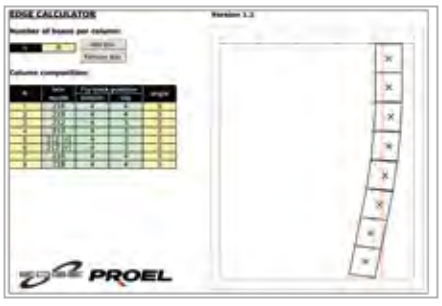
KPTEDTR2

KPTEDTR1

AC178



AC171
AC172
AC 173
AC169A



EDGE CALCULATOR

PLFTMQ30
Tower for flying speaker arrays 7.5 m-500 kg

PLFTMQD30
Tower for flying speaker arrays 9.5 m-600 kg

The EDGE Series features a variety of accessories for suspension in permanent installations or in live venues. Thanks to the built-in fly-track couplers, concert systems EDGE212P and EDGE218SP can be suspended in arrays using the elements of modular flying bar KPTED1218. The simplest arrayed configurations can be suspended with the AC180 chain; for greater stability and less encumbrance, connecting beams KPTED1218 and KPTEDTR2 are advised.

Couplings and splay angles between the cabinets composing the array are formed by cables and steel hinges AC172E and AC172P.
The EDGE CALCULATOR spread sheet is available at **www.proelgroup.com. It** verifies the composition of the array and the correct position of the coupling points according to the array configuration you need. In the PROEL Trussing catalogue you will find 7.5 m and 9.5 m suspension towers for the EDGE array systems.

OPTIONAL ACCESSORIES

The EDGE Series includes transportation and system care accessories. The EDGESKATE caster board with an easy coupling/release device ensures easy transportation of EDGE212P and EDGE218SP concert systems. Special professional padded flight cases for monitors EDGE15CXPB and EDGE12CXP are available. Each flight case can hold two monitors. A variety of cover models in the COVERE Series provide extra protection for their already durable finishes.

COVERE218	PADDED COVER FOR EDGE212P - EDGE218SP
93COVE21	WIND PROOF NYLON COVER FOR EDGE121SP
COVERE121	PADDED COVER FOR EDGE121SP
COVERE15	PADDED COVER FOR EDGE15CXPB
COVERE12	PADDED COVER FOR EDGE12CXP
COVERE8	TNT COVER FOR EDGE8CXP

EDGESKATE

90COVE21

COVERE15

For models EDGE8 and EDGE25 a wide series of clamps, with or without joints, and accessories for permanent wall mounted installations are available.

Satellites can be mounted on subs with stands KP210 and PLX10. If you replace the loudspeaker aluminium flange with flange KP325 you can use stands with an M20 terminal.

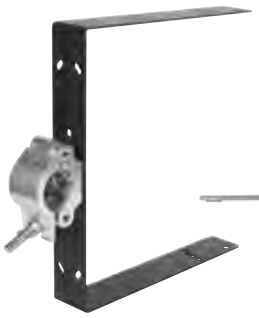
Coupler PLH300 will couple the clamps directly to a truss. The EDGE Series – except the concert models – features coupling points for M10 eyebolts (M8 for EDGE25).

PLX10	ADJUSTABLE POLE, ABS TERMINAL Ø 35 MM
PLX10S	ADJUSTABLE POLE, TOP ABS TERMINAL Ø 35 MM, BOTTOM SCREW M20
PLX10DS	ADJUSTABLE POLE, TOP-BOTTOM SCREW M20

PLX10DS

PLX10S

PLX10



PLH300
TRUSS COUPLER

KPTED25W

KPTED25B	WALL MOUNTING BRACKET FOR EDGE25PB (BLACK)
KPTED25W	WALL MOUNTING BRACKET FOR EDGE25PW (WHITE)

KPTED8SB

KPTED8SB	WALL MOUNTING BRACKET WITH SWIVEL JOINT FOR EDGE8CXPB (BLACK)
KPTED8SW	WALL MOUNTING BRACKET WITH SWIVEL JOINT FOR EDGE8CXPW (WHITE)

KP325

STEEL FLANGE Ø 110MM, WITH BUSH FOR M20

KP210	ADJUSTABLE POLE, ABS TERMINAL Ø 35 MM
KP210S	ADJUSTABLE POLE, TOP ABS TERMINAL Ø 35 MM, BOTTOM SCREW M20
KP210DS	ADJUSTABLE POLE, TOP-BOTTOM SCREW M20

KPT210DS

KPT210S

KP210

KPTED8B

KPTED8B	WALL MOUNTING BRACKET FOR EDGE8CXPB (BLACK)
KPTED8W	WALL MOUNTING BRACKET FOR EDGE8CXPW (WHITE)

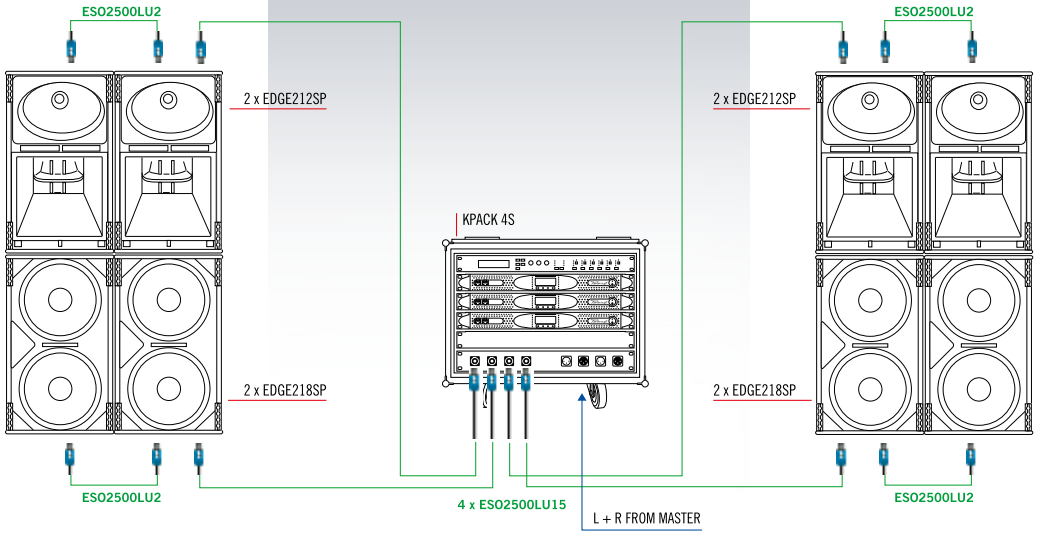
PLKP182ED

POLE MOUNT ADAPTER FOR EDGE25PB

	EDGE212P	EDGE218SP	EDGE SW121P	EDGE112SP
System Type	3-way horn loaded full range bi-amp	direct radiation bass-reflex woofer	direct radiation bass-reflex subwoofer	direct radiation bass-reflex subwoofer
Nominal Impedance	8 Ω + 16 Ω	8 Ω + 8 Ω	8 Ω	8 Ω
Input Power Rating (AES)	800 W + 150 W	800 W + 800 W	1500 W	400 W
Input Power Rating (program)	1600 W + 300 W	1600 W + 1600 W	3000 W	800 W
Frequency Response	125 Hz - 20 kHz (-3 dB, +6 dB)	40 Hz - 100 Hz (-6 dB)	32 Hz - 80 Hz (-3 dB)	39 Hz - 125 Hz (-3 dB)
Sensitivity	107 dB SPL (2.83 V @ 1 m) MF	97 dB (2V @ 1m, 4 Ω - both speakers linked)	96 dB SPL (2.83 V @ 1 m)	96 dB SPL (2.83 V @ 1 m)
	112 dB SPL (4 V @ 1 m) HF	-	-	-
Maximum (peak) Output	139 dB @ 1 m	132 dB @ 1 m	131 dB @ 1 m	125 dB @ 1 m
Low Frequency Device	-	2 x 18" woofer - 4" voice coil	21" woofer – 5.3" voice coil	12" woofer - 3" voice coil
Mid Frequency Device	2 x 12" woofer - 3" voice coil - horn loaded	-	-	-
High Frequency Device	2" coaxial compression driver - horn loaded	-	-	-
Coverage Angle H. (-6 dB)	50° average, 315 Hz to 20 kHz	-	-	-
Coverage Angle V. (-6 dB)	40° average, 315 Hz to 20 kHz (5° downtilit)	-	-	-
Trapezoidal Taper	25°	25°	-	-
Directivity Index (DI)	12.8 average, 315 Hz to 20 kHz	-	-	-
Signal Processing	Proel DSO480	Proel DSO480	Proel DSO480, Proel ASO25	Proel ASO25, Proel DSO480
Flying System	Fly Track	Fly Track	-	5 x M10 - top, bottom, rear
Connectors	2 x Neutrik Speakon NL4MP linked	2 x Neutrik Speakon NL4MP linked	2 x Neutrik Speakon NL4MP	2 x Neutrik Speakon NL4MP linked
Construction	trapezoidal, 18 mm birch plywood, internally reinforced	trapezoidal, 18 mm birch plywood, internally reinforced	15/18 mm birch plywood, internally reinforced	15/18 mm birch plywood, internally reinforced
Finishing	paint finish	paint finish	paint finish	paint finish
Cabinet Colour	black	black	black	black
Mounting Pole	-	-	1 x top	1 x top
Dimensions (W x H x D)	58.5 x 98.8 x 68.5 cm	58.5 x 98.8 x 68.5 cm	58.4 x 76.5 x 81.0 cm	37 x 46.8 x 46 cm
Weight	86.5 kg (190.7 lb)	81 kg (178.6 lb)	59 kg - 130 lb	24.5 kg (54.0 lb)

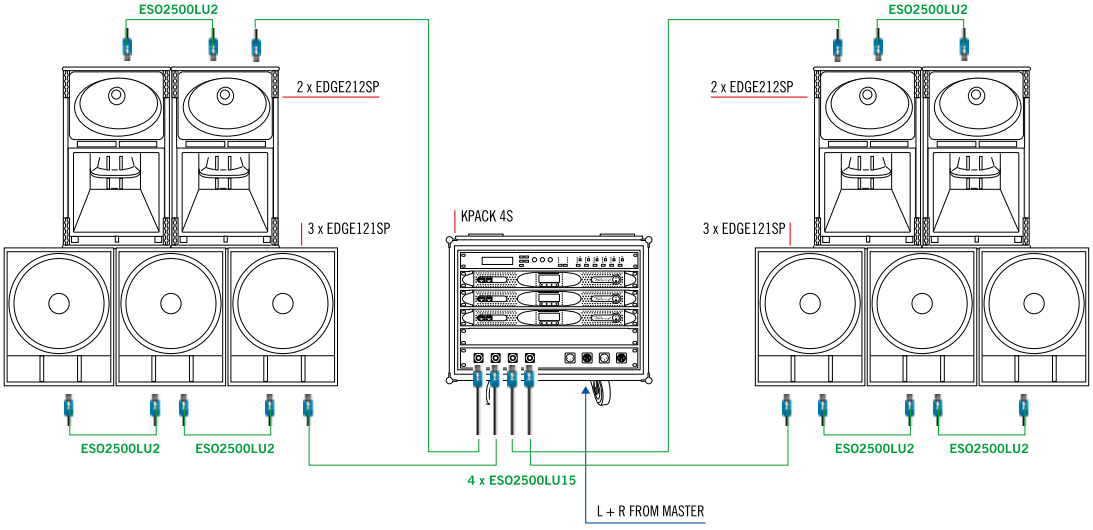
	EDGE15CXPB	EDGE12CXP	EDGE8CXP	EDGE25P
System Type	coaxial 2-way vented enclosure	coaxial 2-way vented enclosure	coaxial 2-way vented enclosure	2-way vented enclosure
Nominal Impedance	8 Ω	8 Ω	8 Ω	16 Ω
Input Power Rating (AES)	900 W (900 W + 75 W bi-amp)	450 W (450 W + 75 W bi-amp)	225 W	100 W
Input Power Rating (program)	1800 W (1800 W + 150 W bi-amp)	900 W (900 W + 150 W bi-amp)	450 W	200 W
Frequency Response	60 Hz - 20 kHz (±6 dB)	75 Hz - 20 kHz (±6 dB)	80 Hz - 20 kHz (±6 dB)	125 Hz - 20 kHz (±6 dB)
Sensitivity	99 dB SPL (2.83 V @ 1 m) LF	98 dB SPL (2.83 V @ 1 m) LF	95 dB SPL (2.83 V @ 1 m)	93 dB SPL (4 V @ 1 m)
	109 dB SPL (2.83 V @ 1 m) HF	109 dB SPL (2.83 V @ 1 m) HF	-	-
Maximum (peak) Output	131 dB @ 1 m	127 dB @ 1 m	121 dB @ 1 m	116 dB @ 1 m
Low Frequency Device	15" woofer - 4" voice coil - 8 Ω	12" woofer – 3" voice coil - 8 Ω	8" woofer - 2" voice coil	2 x 5.25" woofer
High Frequency Device	1.5" compression driver - coaxial - 8 Ω	1.5" compression driver - coaxial - 8 Ω	1" compression driver - coaxial	dome tweeter with spherical waveguide horn
Coverage Angle H. (-6 dB)	65° average, 630 Hz to 20 kHz	65° average, 630 Hz to 20 kHz	85° averaged, 1 kHz to 20 kHz	80° averaged, 1 kHz to 20 kHz
Coverage Angle V. (-6 dB)	65° average, 630 Hz to 20 kHz	65° average, 630 Hz to 20 kHz	85° averaged, 1 kHz to 20 kHz	65° averaged, 1 kHz to 20 kHz
Monitor Taper	42°	42°	45°	20°
Directivity Index (DI)	12.4 average, 630 Hz to 20 kHz	12.4 average, 630 Hz to 20 kHz	9.7 averaged, 1 kHz to 20 kHz	10 averaged, 1 kHz to 20 kHz
Constant Voltage Transformer	-	-	optional 100V EDGE8CXTB (Black)	optional 100V EDGE25TB (Black)
	-	-	and EDGE8CXTW (White)	and EDGE25TW (White)
Signal Processing	Proel DSO480	Proel DSO480	-	-
Flying System	4 x M10 lateral	4 x M10 lateral	4 x M10 - top, bottom, rear	2 x M8 - top, bottom 1 x M10 - rear
Connectors	2 x Neutrik Speakon NL4MP linked	2 x Neutrik Speakon NL4MP linked	2 Neutrik Speakon NL4MP linked	2 x Neutrik Speakon NL4MP linked
Construction	18 mm birch plywood, internally reinforced	18 mm birch plywood, internally reinforced	15 mm birch plywood	15 mm birch plywood
Finishing	paint finish	paint finish	paint finish	paint finish
Cabinet Colour	black	black	black EDGE8CXPB, white EDGE8CXPW	black EDGE25PB, white EDGE25PW
Mounting Pole	1 x lateral	1 x lateral	1 x bottom	-
Dimensions (W x H x D)	58.4 x 39.4 x 61.9 cm	43.5 x 39.4 x 61.9 cm	26 x 33 x 28 cm	17.6 x 46 x 19 cm
Weight	33 kg (72.7 lb)	25 kg (55.1 lb)	10 kg (22.1 lb)	7 kg (15.4 lb)

SET-UP EXAMPLE



AMPLIFIER PACKS

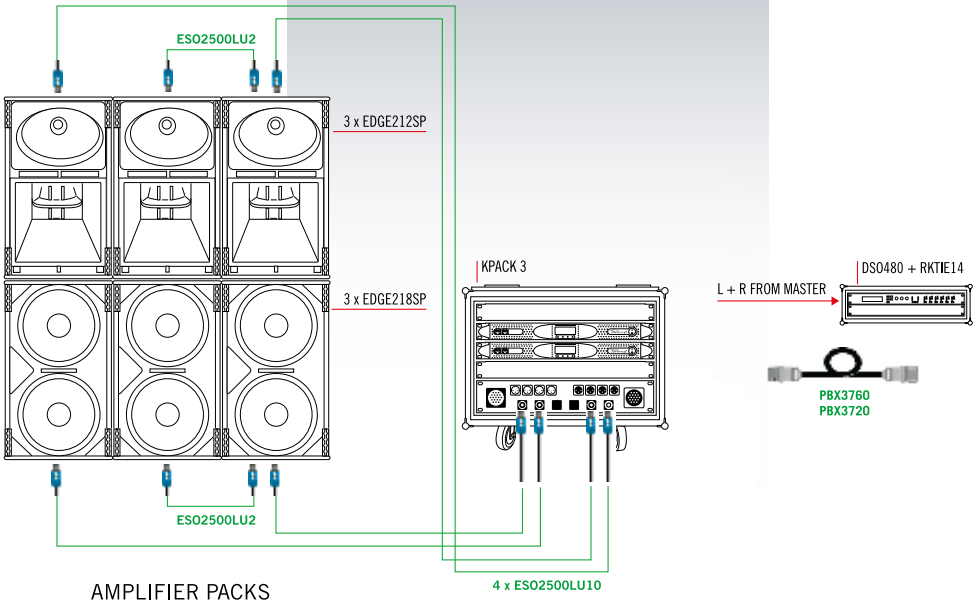
KPACK 4S	
DSO480	Digital Signal Processor 4 IN / 8 OUT
PS K6	2 x 3,600 Watt 2 ohm power amplifier
PS K6	2 x 3,600 Watt 2 ohm power amplifier
PS K10	2 x 6,000 Watt 2 ohm power amplifier
CRK115P	IN/OUT panel
CSP9932	power panel 32 A plug
CP047A02	6 U professional rack case



AMPLIFIER PACKS

KPACK 4S	
DSO480	Digital Signal Processor 4 IN / 8 OUT
PS K6	2 x 3,600 Watt 2 ohm power amplifier
PS K6	2 x 3,600 Watt 2 ohm power amplifier
PS K10	2 x 6,000 Watt 2 ohm power amplifier
CRK115P	IN/OUT panel
CSP9932	power panel 32 A plug
CP047A02	6 U professional rack case

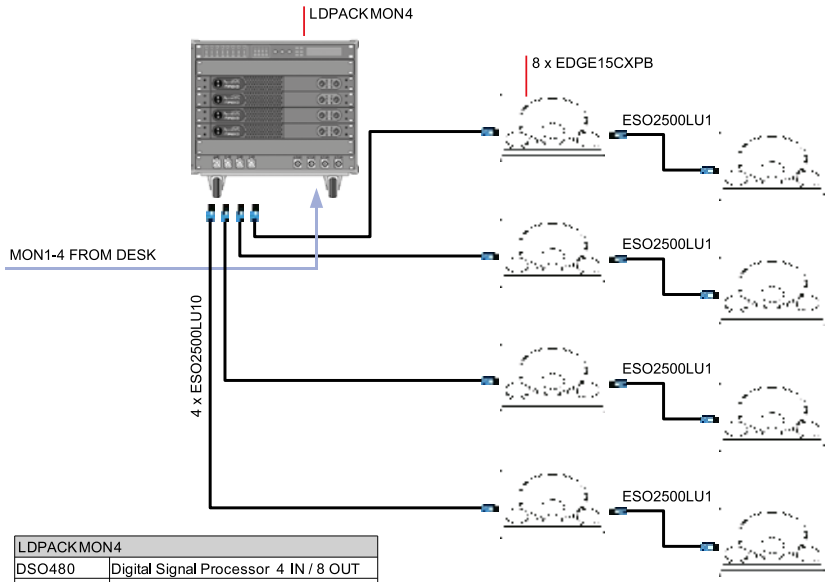
SET-UP EXAMPLE



AMPLIFIER PACKS

KPACK 3	
PS K6	2 x 3.600 Watt 2 ohm power amplifier
PS K10	2 x 6.000 Watt 2 ohm power amplifier
CRK404PS	IN/OUT panel
CSP9932	power panel 32 A plug
CP047A02	6 U professional rack case

** only one side is shown*



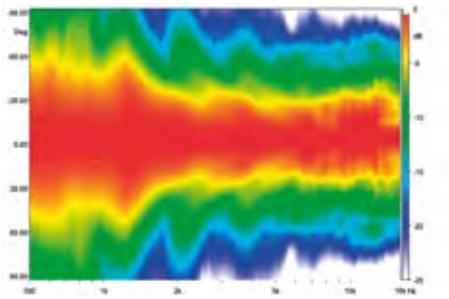
LDPACKMON4	
DSO480	Digital Signal Processor 4 IN / 8 OUT
PS LD3004	2 x 2.700 Watt 2 ohm power amplifier
PS LD3004	2 x 2.700 Watt 2 ohm power amplifier
PS LD3004	2 x 2.700 Watt 2 ohm power amplifier
PS LD3004	2 x 2.700 Watt 2 ohm power amplifier
CRK115P	IN / OUT panel
CSP9932M	power panel 32 A mono plug
CR308P	8 U professional rack case

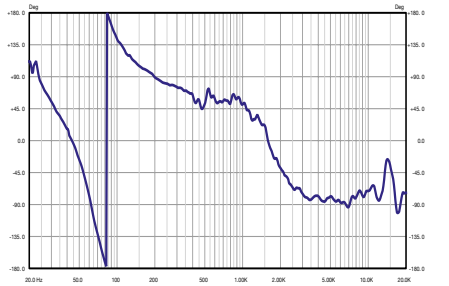
EDGE COMPACT

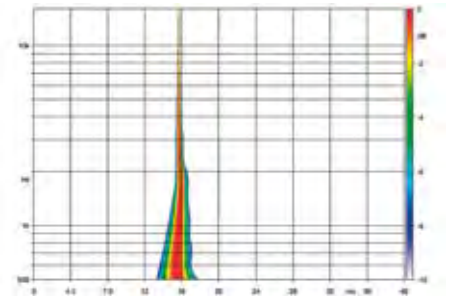
The EDGE Compact Series systems are powerful instruments for both permanent installations and touring applications. They can be employed to compose particularly compact and versatile systems, fit for small or medium size concert and listening areas where you need accurate levels of sound quality. They can also be used as auxiliary systems in large installations, such as for coverage of the first rows in theatres, or of the space under balconies and grandstands, and for locations requiring extremely compact and discrete speakers. Furthermore, they can be employed as main components in scalable systems spread in convention centres or in places of worship. Thanks to their compact size and sound quality and to their unexpected sound pressure capability, they are suitable for TV broadcast applications as well.
The EDGE Compact Series comprises 3 medium size 3-way speaker systems – EDGE12CP, EDGE15CP and EDGE210CP – designed for bi-amplification, and a fourth small size system, EDGE65CP, which features an internal passive filter.

EDGE210CP is the only medium size system which, on request, can be equipped with an internal passive filter.
The C12P, C15P and C210P models have been designed to be used either singularly or in combination. In fact, they use the same high frequency unit and the same horns, as well as most of the technology and materials employed for the bass frequency enclosures.
These three systems have been designed to yield the same phase response and the same constant frequency response, and thereby the same timbre balance. Thus, it is very easy to combine these systems in the same application, and once a few basic functions – power levels, relative delays and mechanical angles – have been adjusted, the result is an amazing timbre uniformity for the whole listening area.

Each system operates full-range and can be used in a variety of applications that do not require too much energy nor low-end extension. Nonetheless, were these features needed, the simultaneous employment of subwoofer EDGE121SP would allow a 3-way systems to generate high enough sound pressure levels for any application, including live concerts and large discotheques. Subwoofer NEOS218SP can also be used to support these systems for bass frequencies.







Studies conducted by the PROEL SRT lead to an original and specific design technique for crossovers, which allows the optimisation of the off-axis response stability, remarkably reducing "lobing" at the crossover frequency. At the same time it grants a homogeneous phase response, with a very limited total phase shift in comparison with that deriving from conventional alignments.

This feature considerably increases the coherence of the impulse response.

EDGEC65P

- New rotatable horn with 70° x 50° coverage
- HF driver with high-power voice coil
- Low profile, ideal for television and theatre applications
- Audiophile quality passive crossover network

The model in the series that yields the best performance/size ratio is doubtlessly the EDGE65CP, thanks to its 6.5" woofer and 1" throat driver. The new large-size, rotatable wave guide guarantees a nominal angular coverage of 70° x 50° (H x V), particularly stable in the mid-high range. In this frequency range this allows a good coverage of well defined areas and avoids sending energy where it is not required. The woofer grants an extended and controlled response with exceptional dynamic capacity, while the progressive rubber suspension controls excursion at bass frequencies while preserving the stability of cone behaviour, even at higher frequencies. Parallel configurations yield better results thanks to the 8-ohm impedance of the speakers and to their passive filter. Total frequency response ranges from 85 Hz upwards, and, whenever needed, bass frequency support can be provided by the EDGE 112SP subwoofer.

EDGE C12P

EDGE C15P

EDGE C210P

C12P, **C15P** and **C210P** are 2-way bi-amplifiable speaker systems. They feature woofers with a cone reinforced with carbon fibre, a single demodulating ring (SDR) and a water repellent protection treatment. For the high frequencies they use a large format 1.5" driver with a ferro-fluid cooled coil on a rotatable horn. This high frequency driver is combined with a progressive constant-directivity thick aluminium waveguide to obtain excellent directivity control, balanced frequency response and low distortion, which means high-end reproduction of outstanding quality. The systems can be equipped with a waveguide featuring a nominal 60°x40° (H x V) coverage or, on request, with a waveguide with a nominal 90°x60° (H x V) coverage. The angular coverage can be changed at any time just by replacing the waveguide.

- New rotatable horns, available with 60° x 40° or 90° x 60° dispersion
- Moving coils with high power handling
- Woofer with extended performance at bass frequencies

	EDGEC65P	EDGEC12P64 / C12P96	EDGEC15P64 / C15P96	EDGEC210P64 / C210P96
System Type	2-way full range bi-amp	2-way full range bi-amp	2-way full range bi-amp	2-way full range bi-amp
Nominal Impedance	8 Ω + 8 Ω	8 Ω + 8 Ω	8 Ω + 8 Ω	8 Ω + 8 Ω
Input Power Rating (AES)	250 W + 60 W (250 W passive)	800 W + 100 W	800 W + 100 W	800 W + 100 W (800 W passive)
Input Power Rating (program)	500 W + 120 W (500 W passive)	1600 W + 200 W	1600 W + 200 W	1600 W + 200 W (1600 W passive)
Frequency Response	85 Hz - 18 kHz (-3 dB, +6 dB)	60 Hz - 18 kHz (-3 dB, +6 dB)	50 Hz - 18 kHz (-3 dB, +6 dB)	65 Hz - 18 kHz (-3 dB, +6 dB)
Sensitivity	94 dB SPL (2.83 V @ 1 m) LF	98 dB SPL (2.83 V @ 1 m) LF	99 dB SPL (2.83 V @ 1 m) LF	99 dB SPL (2.83 V @ 1 m) LF
	108.5 dB SPL (2.83 V @ 1 m) HF	110 dB SPL (2.83 V @ 1 m) HF	110 dB SPL (2.83 V @ 1 m) HF	110 dB SPL (2.83 V @ 1 m) HF
Maximum (peak) Output	120 dB @ 1 m (passive)	130 dB @ 1 m	132 dB @ 1 m	131 dB @ 1 m (passive)
Low Frequency Device	6.5" neodymium woofer - 2" voice coil	12" neodymium woofer - 4" voice coil	15" neodymium woofer - 4" voice coil	2 x 10" neodymium woofer - 3" voice coil
High Frequency Device	1" neodymium compression driver	1.5" neodymium driver - 3" voice coil	1.5" neodymium driver - 3" voice coil	1.5" neodymium driver - 3" voice coil
Coverage Angle H. (-6 dB)	70°	60° or 90°	60° or 90°	60° or 90°
Coverage Angle V. (-6 dB)	50°	40° or 60°	40° or 60°	40° or 60°
Trapezoidal Taper	15°	20°	20°	20°
Signal Processing	Full range - Proel DS480	Proel DS480	Proel DS480	Full range -Proel DS480
Flying System	4 x M10	Fly Track	Fly Track	Fly Track
Connectors	2 x Neutrik Speakon NL4MP linked	2 x Neutrik Speakon NL4MP linked	2 x Neutrik Speakon NL4MP linked	2 x Neutrik Speakon NL4MP linked
Construction	trapezoidal, 15 mm birch plywood,	trapezoidal, 15 mm birch plywood,	trapezoidal, 15 mm birch plywood,	trapezoidal, 15 mm birch plywood,
	internally reinforced	internally reinforced	internally reinforced	internally reinforced
Finishing	paint finish	paint finish	paint finish	paint finish
Cabinet Colour	black - white	black - white	black - white	black - white
Monitor Taper	41°			
Mounting Pole	1 x bottom	1 x bottom	1 x bottom	1 x bottom
Dimensions (W x H x D)	26 x 42 x 20 cm	41 x 63 x 37 cm	47 x 73 x 46 cm	36 x 86 x 32 cm
Weight	9.5 kg (20.9 lb)	27.2 kg (59.9 lb)	36.7 kg (80.9 lb)	32.7 kg (72.1 lb)

EDGE ACTIVE

SELF-POWERED SPEAKER SYSTEMS

In their market segment, the **Edge** Series active models represent the highest expression of Proel Sound Reinforcement. Audio quality and surprising sound pressure levels are their distinctive elements. Great care has been taken to provide every model with functions that enhance performance when used singularly for distributed or multi-source applications, but also when used in arrays or as stage monitors. The first four active models in the Edge Series are two mid-sized loudspeaker systems (C12A and C15A) and two stage monitors (12CXA and 15CXA). Their suspension systems feature flying points for installation and quick release for temporary use.

Amplification electronics

All models feature internal amplification and processing, plus protection and excursion control circuitry. The circuits have been designed using high quality analog components, thus avoiding the typical drawbacks of digital electronics. The onboard amplifier is based on Pulse Width Modulation technology (Class D) and can delivers up to 2000 W of continuous power.

The protection system includes a **SPEAKER THERMAL PROTECTION** board that simulates the woofer's thermal behaviour: when an excessive temperature is recorded, the level is adjusted to ensure maximum reliability. As it memorizes data acquired, the protection system will work even if the speaker gets turned off and then switched back on. Signal processing operations allow quick adaptation of system performance to the actual conditions of use, immediately shown by the function LEDs.

- **HF LIFT**: allows the high frequency response to be increased when necessary.
- **COUPLED UNITS EQ**: reduces the increment of mid-low frequencies due to the simultaneous use of two or more systems side by side.
- **LOW CUT**: filters bass frequencies whenever the systems are employed as satellites.

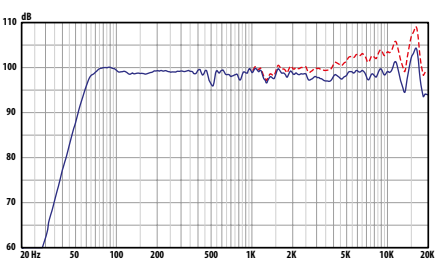
EDGE C12A / C15A

- Rotatable horns, available with 60° x 40° or 90° x 60° dispersion
- Moving coils with high power handling
- Woofer with extended bass frequency performance
- On-board high-performance amplifier

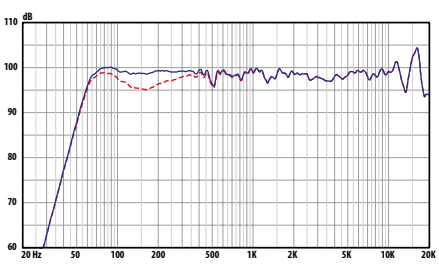
These systems can be used as full-range in a variety of applications. They feature woofers with neodymium magnets, carbon fiber-reinforced cones, 4"ISV coils wound internally and externally on the former, double demodulating rings, double silicon spiders and a water repellent protective treatment. High frequencies are reproduced by a large-format driver, featuring a moving coil with high power handling coupled to a rotatable horn with a 1.5" throat. The high frequency driver is combined with a thick aluminum progressive waveguide with constant directivity: excellent directivity control, regular frequency response and low distortion are the features that enable these devices to reach high-end performance with excellent sound quality. The systems can be equipped with a 60°x 40° waveguide (C12A64 and C15A64) or, on demand, with a 90° x 60° waveguide (C12A96 and C15A96).

EDGE C12A

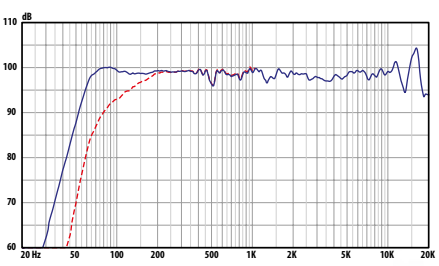
EDGE C15A



HF LIFT



COUPLED UNIT EQ



LOW CUT

EDGE C12XA / C15XA

- Coaxial woofer with 60° x 40° elliptical exponential horn
- Low profile design, ideal for theatre and television applications
- On-board high-performance amplifier

EDGE series monitors are high-efficiency, low-profile 2-way enclosures. Their active versions use brand new custom-designed coaxial loudspeakers featuring an exponential horn and a powerful driver with a 3" coil and a titanium membrane. A high-performance woofer ensures a broad frequency bandwidth. A single powerful neodymium magnet structure guarantees high sensitivity (98 dB/107 dB) with drastic weight reduction.

The elliptical exponential horn grants an angular coverage of 60°x40° with increased flexibility for monitoring, FoH and fixed installations. The high-performance coaxial transducer employed provides a good sound balance and great intelligibility even at extremely high power. Last, but not least, their compact design makes for an attractive, yet low, profile, which is a very important feature, especially in television applications

EDGE C12XA

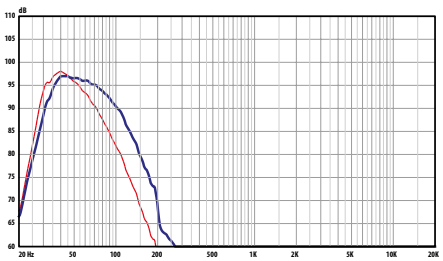
EDGE C15XA

EDGE SW121A

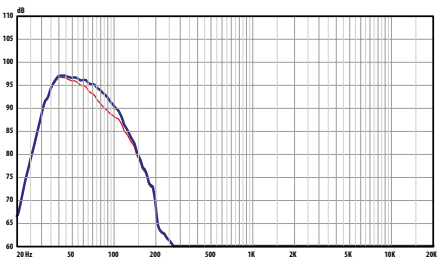
- On-board high-performance amplifier
- Direct-radiating bass unit
- 21" woofer with a 5.3" ISV coil
- Over-damped enclosure

The **SW121A** direct-radiating 21" subwoofer completes bass response with an impressive excursion control and amazing power handling. Its sturdy double silicon spider (DDS) mechanical cone suspension system, the double demodulating rings (DDR) and the over-damped enclosure provide a great deal of defined and well controlled energy at low frequencies. A passive version is also available (EDGE SW121P).

Dedicated controls
- **INFRA LPF**: lowers the crossover frequency when used as INFRASUB
- **MULTIPLE UNITS EQ**: reduces the increase in level of the upper low frequency range (80 Hz) dueto the simultaneous use of two or more systems
- **EXTENDED LOW**: extends response at low frequencies



EXTENDED LOW INFRA LPF

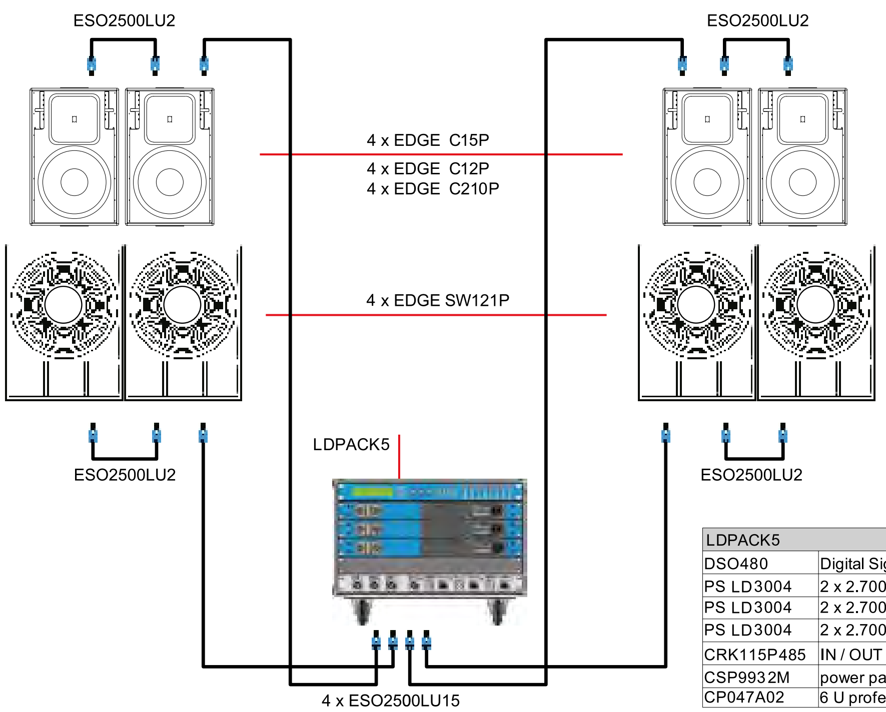


MULTIPLE UNITS EQ

DATA SHEET

Modello	C12A	C15A	12CXA	15CXA	SW121A
Tipo sistema	cassa attiva processata 2 vie	cassa attiva processata 2 vie	cassa attiva processata coassiale 2 vie	cassa attiva processata coassiale 2 vie	subwoofer attivo processato
Risposta in frequenza	60 Hz - 18 kHz (-3 dB, +6 dB)	50 Hz - 18 kHz (-3 dB, +6 dB)	75 Hz - 18 kHz (-3 dB, +6 dB)	60 Hz - 18 kHz (-3 dB, +6 dB)	32 Hz - 80 Hz (-3 dB, +6 dB)
SPL massimo	130 dB @ 1 m	132 dB @ 1 m	131 dB @ 1 m	131 dB @ 1 m	131 dB @ 1 m
Componente Bassa Frequenza	12" neodymium woofer - 4" voice coil	15" neodymium woofer - 4" voice coil	12" neodymium woofer - 3" voice coil	15" neodymium woofer - 3" voice coil	21" neodymium woofer - 5,3" voice coil
Componente Alta Frequenza	1.5" neodymium driver - 3" voice coil	1.5" neodymium driver - 3" voice coil	1.4" neodymium driver - 3" voice coil	1.4" neodymium driver - 3" voice coil	-
Angolo di copertura	60° x 40° (C12A64) 90° x 60° (C12A96) ruotabile	60° x 40° (C12A64) 90° x 60° (C12A96) ruotabile	60° x 40° elliptical horn	60° x 40° elliptical horn	-
Indice di direttività (DI)	4.9 or 6 average, 630 Hz to 18 kHz	4.7 or 5.9 average, 630 Hz to 18 kHz	5 average, 630 Hz to 18 kHz	5 average, 630 Hz to 18 kHz	-
Potenza continua amplificatore	1000 W + 500 W (limited) bi-amp	1000 W + 500 W (limited) bi-amp	1000 W + 500 W (limited) bi-amp	1000 W + 500 W (limited) bi-amp	1500 W
Connettori	IN - LINK: XLR M - XLR F MAIN LINK: PowerCon® (NAC3MPB) MAIN: PowerCon® (NAC3MPA)	IN - LINK: XLR M - XLR F MAIN LINK: PowerCon® (NAC3MPB) MAIN: PowerCon® (NAC3MPA)	IN - LINK: XLR M - XLR F MAIN LINK: PowerCon® (NAC3MPB) MAIN: PowerCon® (NAC3MPA)	IN - LINK: XLR M - XLR F MAIN LINK: PowerCon® (NAC3MPB) MAIN: PowerCon® (NAC3MPA)	IN - LINK: XLR M - XLR F MAIN LINK: PowerCon® (NAC3MPB) MAIN: PowerCon® (NAC3MPA)
Impedenza d'ingresso	LINE: 20 kohm balanced, 10 kohm unbalanced	LINE: 20 kohm balanced, 10 kohm unbalanced	LINE: 20 kohm balanced, 10 kohm unbalanced	LINE: 20 kohm balanced, 10 kohm unbalanced	LINE: 20 kohm balanced, 10 kohm unbalanced
Sensibilità d'ingresso	+4dBu for Full Power	+4dBu for Full Power	+4dBu for Full Power	+4dBu for Full Power	+4dBu for Full Power
Controlli	HF LIFT - COUPLED UNITS EQ LOW CUT - GND LINK	HF LIFT - COUPLED UNITS EQ LOW CUT - GND LINK	HF LIFT - COUPLED UNITS EQ LOW CUT - GND LINK	HF LIFT - COUPLED UNITS EQ LOW CUT - GND LINK	INFRA LPF - MULTIPLE UNITS EQ EXTENDED LOW - GND LINK
Raffreddamento	Heat sink and variable speed DC fan	Heat sink and variable speed DC fan	Heat sink and variable speed DC fan	Heat sink and variable speed DC fan	Heat sink and variable speed DC fan
Protezioni	DC - Thermal - Soft Start - Short Circuit - Overload - Input Limiter - Speaker Thermal Protection - Infrasonic Filter	DC - Thermal - Soft Start - Short Circuit - Overload - Input Limiter - Speaker Thermal Protection - Infrasonic Filter	DC - Thermal - Soft Start - Short Circuit - Overload - Input Limiter - Speaker Thermal Protection - Infrasonic Filter	DC - Thermal - Soft Start - Short Circuit - Overload - Input Limiter - Speaker Thermal Protection - Infrasonic Filter	DC - Thermal - Soft Start - Short Circuit - Overload - Input Limiter - Speaker Thermal Protection - Infrasonic Filter
Angolo Trapezoidale	20°	20°	-	-	-
Angolo Monitor	-	-	42°	42°	-
Sistema di sospensione	Fly Track	Fly Track	4 x M10 lateral	4 x M10 lateral	-
Construzione	trapezoidal, 15 mm birch plywood, internally reinforced	trapezoidal, 15 mm birch plywood, internally reinforced	trapezoidal, 15 mm birch plywood, internally reinforced	trapezoidal, 15 mm birch plywood, internally reinforced	18 \ 15 mm birch plywood, internally reinforced
Alimentazione	115V or 230 V, 50/60 Hz	115V or 230 V, 50/60 Hz	115V or 230 V, 50/60 Hz	115V or 230 V, 50/60 Hz	115V or 230 V, 50/60 Hz
Consumo medio	510 VA (1/8 max output power)	510 VA (1/8 max output power)	510 VA (1/8 max output power)	510 VA (1/8 max output power)	510 VA (1/8 max output power)
Dimensioni (L x A x P)	41 x 63 x 37.8 cm	47 x 73 x 46 cm	58.4 x 39.4 x 61.6 cm	43.5 x 39.4 x 61.6 cm	58.4 x 76.5 x 81.0 cm
Peso	32.5 kg	39.5 kg	24 kg	29.5 kg	62,5 kg

EDGE COMPACT SET-UP EXAMPLE



LDPACK5	
DSO480	Digital Signal Processor 4 IN / 8 OUT
PS LD3004	2 x 2.700 Watt 2 ohm power amplifier
PS LD3004	2 x 2.700 Watt 2 ohm power amplifier
PS LD3004	2 x 2.700 Watt 2 ohm power amplifier
CRK115P485	IN / OUT panel
CSP9932M	power panel 32 A mono plug
CP047A02	6 U professional rack case

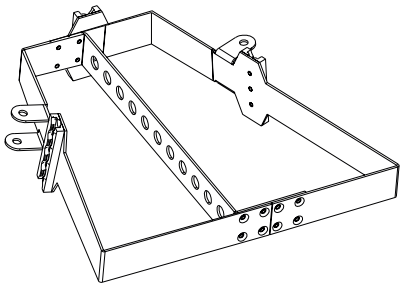
OPTIONAL ACCESSORIES

For transportation, professional padded cases for EDGE15CXPB and EDGE12CXP are available. Every case hosts two monitors.

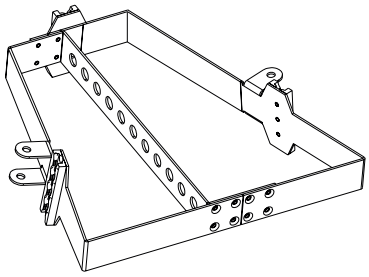
CP074C05

CP058C03	CASE FOR 4 X EDGE25
CP025E04	CASE FOR 4 X EDGE8CX
CP058A04	CASE FOR 2 X EDGE12CX
CP074C05	CASE FOR 2 X EDGE15CX
CP034A08	CASE FOR 4 X EDGE C65P
CP017A08	CASE FOR 2 X EDGE C12
CP017B08	CASE FOR 2 X EDGE C15
CP017C08	CASE FOR 2 X EDGE C210
CP017E08	CASE FOR 2 X EDGE112SP

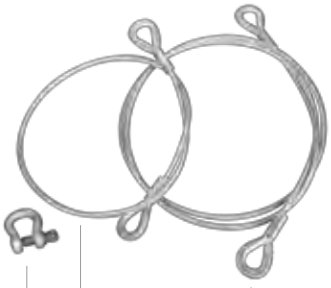
EDGE compact suspension accessories are available either for fixed installations or for mobile situations. Their integrated fly-track system permits them to be suspended in arrays using the dedicated flying bars.



95KPTEDGEC1210
FOR EDGE C12 / C210



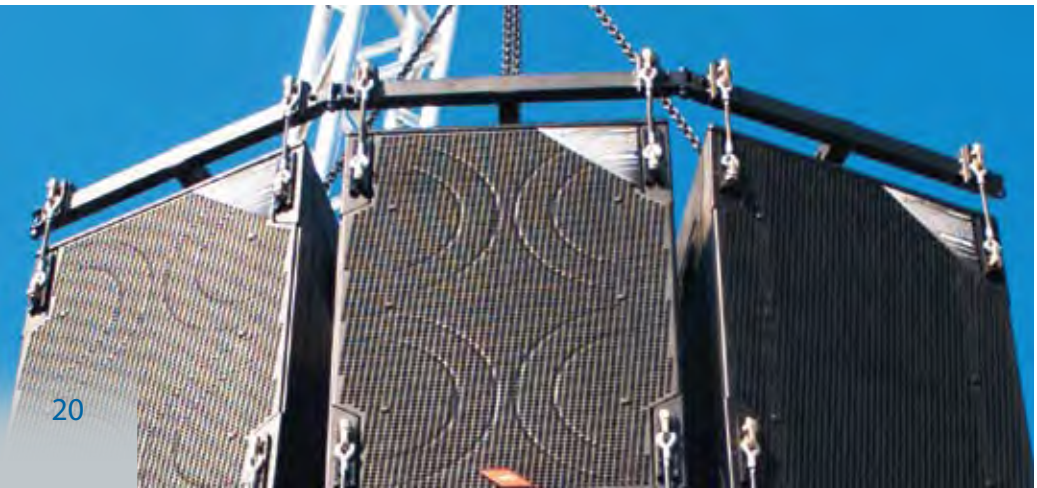
95KPTEDGEC15
FOR EDGE C15



AC171
AC172
AC 173

AC172S

AC178



HPD3400PFC

HP-D3400PFC is the first Proel professional amplifier combining high-performance with low environmental impact. The application of a Switch-Mode Power supply featuring Power Factor Correction (PFC) and a Class D Pulse Width Modulation (PWM) output stage allows the HP-D3400PFC to reach efficiency levels as high as 90-95%. The result is a significant reduction in the energy waste associated with large installations, a noticeable reduction in operating costs and a direct benefit to the environment.
Featuring high power levels in a lightweight and compact chassis, the HP-D3400PFC is much more easy and economical to transport than conventional models, which in turn makes the unit even more environmentally friendly. Through the PFC technology on the power supply stage, the performance of the amplifier is stable even when the voltage is not. Regardless of any eventual fluctuations of the power supply, be it from mains power or from a generator, the amplifier will always be able to deliver the highest level of power: up to 1700 W per channel into 4 ohms and 3400 W into 8 ohms in bridge configuration.

The input section offers the choice between different filtering configurations (FLAT / BI-AMP / HPF), while the ergonomic and functional design, which includes removable anti-dust filter, ensures easy maintenance in all conditions of use and therefore a long durability.

POWER DATA (THD <1% @ 1 KHz, RMS)		
4 Ω	8 Ω	8 Ω BRIDGE
2 x 1700 W	**2 x 1100W**	**3400 W**

	HPD3400PFC
Channel	2
Frequency Response	5 Hz - 25 kHz
Input Sensitivity	0 dB / 40 x
Voltage Gain	40 dB/ 32 dB
Input Impedance	10 kOhm unbalanced 20 kOhm balanced
Damping Factor	> 200 @ 4 ohm
S/N Ratio (Unweighted)	> 108 dB
Input Connectors	Combo and XLR M
Output Connectors	Speakon
Cooling	variable speed DC fan
LED Indicators	protect, signal, bridge, limit
Filtering options	100 Hz selectable HPF 100 Hz 24 dB/octave BI-AMP crossover
Protections	DC, thermal, soft start, short circuit, CLIP limiter
Power Supply	230 V AC (150-264 V) 50 / 60 Hz 120 V AC (85-132 V) 50 / 60 Hz
Rated 1/8 power output	900 VA
Max Power Consuption	3450 VA
Dimensions (W x H x D)	483 x 89 x 383 mm
Weight	11 Kg (24.3 lbs)

DSO480

With its system architecture that includes a 96 kHz sampling rate and a 4-in/8-out flexible matrix configuration, the **DSO480** is one of the most complete and sophisticated audio processor currently available. Much more than a simple crossover, the DSO480 incorporates highly advanced equalization filters (which can be configured as parametric, shelving, notch, band-pass or all-pass), a complete dynamic protection suite and a delay for the alignment of different groups of enclosures or entire other systems in distributed systems. Its AES/EBU digital inputs as standard and new high-performance converters guarantee the finest reproduction of audio signals. All of its functions can be easily regulated using its practical and ergonomic illuminated buttons and its back-lit, 2 x 24-character display. The on-board preset library can be regularly updated using the RS232 port and a user-friendly software.

The DSO480 is the ideal processor for Proel Axiom and Edge systems and is perfect for touring or permanently installed systems where complete, reliable control and high-quality audio are needed..

	DSO480
System Type	Digital System Optimiser 4 inputs / 8 outputs - 24 bit / 96 kHz with digital inputs
Inputs	4 electronically balanced
Input Impedance	> 10 kohm
CMRR	>65 dB 50 Hz – 10 kHz
Connectors	3 pin female XLR: Pin 2 Hot / Pin 3 Cold / Pin1 Ground
Outputs	8 electronically balanced
Minimum Load	600 ohm
Source Impedance	< 60 ohms
Maximum Output Level	+20 dBm into 600 ohm
Connectors	3 pin XLR male: Pin 2 Hot / Pin 3 Cold / Pin1 Ground
Frequency Response	+½ dB 20 Hz - 20 kHz (-3 dB @ 32 kHz)
Dynamic Range	>116 dB 20 Hz - 20 kHz unweighted
Distortion	< .02%@1 kHz, +18 dBm
Maximum Delay	650 mS
Min Step Size	0.3 µS
Input Gain	+6 dB to –40 dB in 0.1 dB steps
Output Gain	+15 dB to –40 dB in 0.1 dB steps and mute
Latency	1.5 mS (analogue in – analogue out @ 96 kHz)
Parametric Equalisation	8 per Input / 9 Sections per Output Filter Gain: +15 dB to –30 dB in 0.1 dB steps Freq. Range: 19.7 Hz – 32 kHz, 1/36 octave steps Filter Q / BW: 0.4 to 128 / 2.5 to 0.008 (Sections switched to shelving response) Low frequency: 19.2 Hz – 1 kHz High frequency: 1 kHz – 32 kHz Shelf gains: ±15 dB in 0.1 dB steps
High and Low pass Filters	Filters: 1 of each per output Freq. Range HPF: 10 Hz – 16 kHz, 1/36 octave steps Freq. Range LPF: 35 Hz – 22 kHz, 1/36 octave steps. Responses: 1st Order 6 dB/Oct. - Bessel/Butterworth/Linkwitz-Riley 12-24-48 dB/Oct. Bessel/Butterworth 18 dB/Oct.
Limiters	Program Limiter: Threshold: +22 dBu to –10 dBu Attack time: 0.3 to 90 milliseconds Release time: 2/4/8/16/32 x Attack time “D-Max” Limiter: Attack Time: -60 uS Release Time: Slow/Medium/Fast
Display	2 x 24 Character LCD
Input meter	4 x 4 point, -24 dB to digital clip
Output meter	8 x 4 point, -24 dB to +4 dB into limit
External	9 pin DEE connector (RS232)
Power	60 to 250V ±15% @ 50/60 Hz
Consumption	< 30 watts.
Dimensions (W x H x D)	44 (1U) x 482 x 300 mm excluding connectors
Weight	3.3 kg

ASO25

Active System Optimizer **AS025** is an analog processor designed to get the best performance out of subs + and satellites systems, by optimizing the separation of the signals to be sent to the high and the low section. It features two input channels, two High output channels, two Low output channels and one more Mono Low output. The crossover is a Linkwitz-Riley, 24 dB/octave type with a crossover frequency that can be selected between 80 Hz, 125 Hz and 160 Hz using internal jumpers. ASO25 also includes a subsonic filter, an adjustable limiter and it provides a selectable delay of 0, 300 µs, or 600 µs. With the addition of an optional board, customized parametric filters can be added. Additionally, it is possible to adjust internally a shelving "air" tone control at 10 kHz.

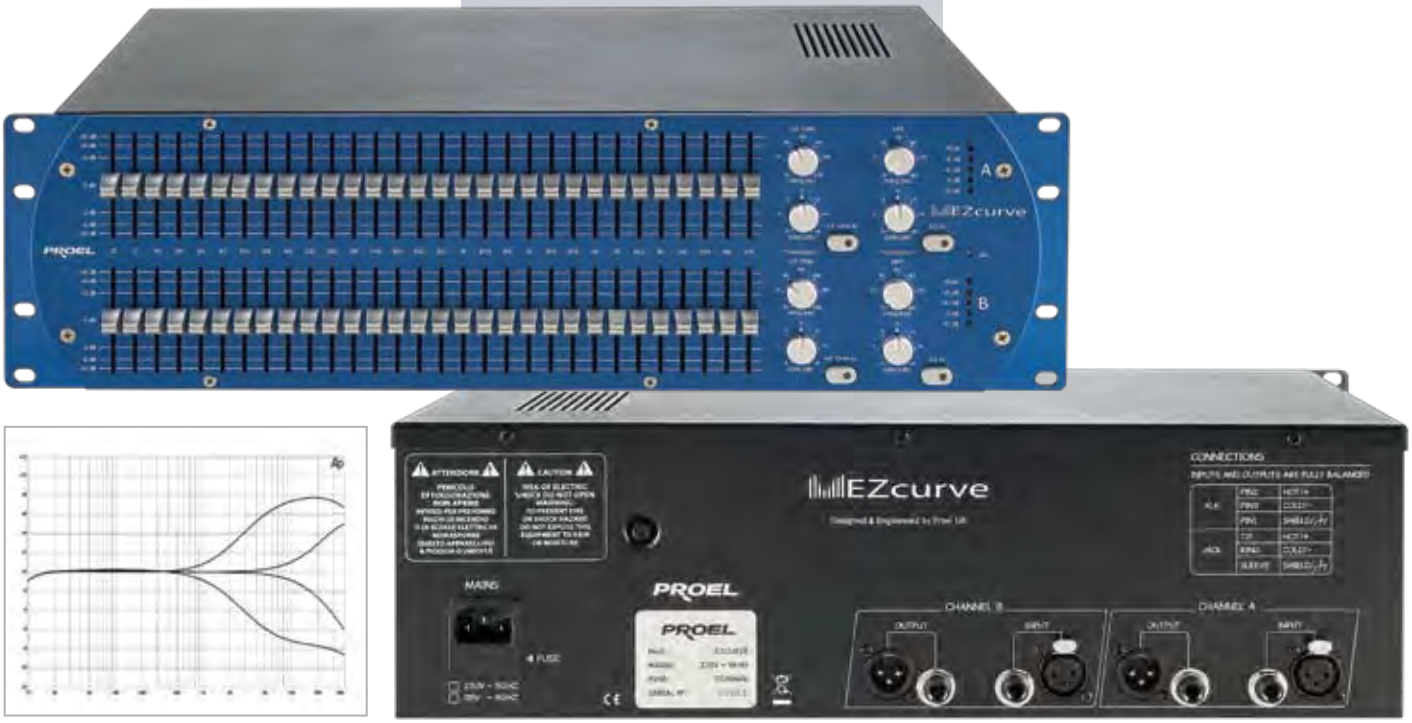
	AS025
	2 way stereo + mono low crossover
Frequency Response	20 Hz - 20 kHz
Distortion THD + Noise	0.003% @ 100 Hz, 0.004% @ 1 kHz
Crosstalk Attenuation	>110 dB 20 Hz - 1 kHz, >100 dB 20 Hz - 20 kHz
Crossover Filters	24 dB/oct Linkwitz-Riley
Crossover Frequency	80 Hz, 125 Hz, 160 Hz (factory setting 125 Hz)
Limiter	sweepable
Filters	subsonic, 10 kHz shelving, parametric EQ (optional)
Delay	0, 300 us, 600 us
Connectors	XLR balanced
Power Supply	230 V AC 50 Hz or 115 V AC 60 Hz
Power consumption	28 VA
Dimensions (W x H x D)	48.3 x 4.4 x 16.6 cm
Weight	2.5 kg (5.5 lb)

ESO25

The **ESO25** Enhanced System Optimizer is an analog processor designed to take bi-amplified systems to their highest performance level. Its superb design allows the ESO25 to optimally process signals and send them on their way to the amplifiers. It has two input channels, two HF output channels, two LF output channels, and an additional Summed LF output, which is used only in certain configurations.
The signal processing guarantees an effective and very controlled response. Particularly when used with the EDGE 12CXP and 15CXPB monitors, it fully exploits their performance qualities and exalts their uniformity of dispersion.

	ES025
	2 way stereo + sum LF crossover
Frequency Response	20 Hz - 20 kHz
Distortion THD + Noise	0.003% @ 100 Hz, 0.004% @ 1 kHz
Crosstalk Attenuation	>110 dB 20 Hz - 1 kHz, >100 dB 20 Hz - 20 kHz
Connectors	XLR balanced
Power Supply	230 V AC 50 Hz or 115 V AC 60 Hz
Power consumption	28 VA
Dimensions (W x H x D)	48.3 x 4.4 x 16.6 cm
Weight	2.5 kg (5.5 lb)

EZCURVE



Ezcurve combines new features with superior technical specifications, in order to grant a new approach to professional equalization. Ezcurve is a 1/3 octave twin-channel graphic equalizer, yielding up to ± 10dB gain at 30 frequencies ranging from 25Hz and 20kHz. The filter design has been optimised for smooth interpolation and superior performance in this price range. 45mm faders grant excellent precision and the Ezcurve also offers exceptional specs when it comes to noise and distortion.

It also features a high frequency shelving filter, with HF trim, with variable gain and frequency control, which allow quick regulation of the high frequency response. This feature responds to the need of system realignment when, for example, it faces temperature or humidity changes in the venue.

- Outstanding analogue performance and selected audiophile components
- Variable High Frequency Trim
- Hi Pass Filter, Low Pass Filter and LED meter bar

GATOR

Gator provides two channels of gating and compression, with hard and soft knee operative modes, and allows total control of signal dynamics for any application. The main features include:
- Gating circuit with selectable fast or slow release time and selectable 80- or 20dB attenuation.
- The exclusive VKF (Variable Key Filter) with tuneable HPF and LPF independently assignable to the level detector of the gate or the compressor or both. This innovative system allows the action of the compressor or gate to be fine tuned to a specific frequency range.
- Selectable hard- or soft-knee compression and a Contour filter designed to compensate high-end detail loss during compression of mixed programme material.
- RMS level detector circuitry, which perceive the signal in a more musical manner, like the human ear, and offers superior results on program and peak compression.
- 8-LED meter offering precise monitoring and showing up to 30dB variable gain reduction.

- Outstanding analogue performance and selected audiophile components
- Variable gate and compressor independently assignable, frequency conscious key filter
- Selectable Contour filter in the side-chain path to compensate for natural high frequency detail loss

EZCURVE	
System Type	Stereo 2 x 30 band Graphic Equalizer
Frequency Response	20 Hz - 20 kHz
Input Impedance	>10 kΩ
S/N Ratio	< -98 dB (20 Hz - 20 kHz unweighted)
Distortion THD	< 0.01% @ 1 kHz.
Crossover Filters	HPF: 10 Hz to 160 Hz +
	LPF: 18 kHz (internal selectable)
EQ filters	2 x 30 1/3 octave, 25 Hz to 20 kHz.
	High performances LCR network, ± 10 dB
H.F. Trim	2 kHz to 20 kHz, ± 8 dB max. @ 20 kHz
Output Gain	± 10 dB
Outputs	Source Imp: <60 Ω to Min.Load: 600 Ω
Max out.level	+23 dBm into 600 Ω
Connectors	input: 2 x XLR F + 1/4 (6,5 mm) TRS
	Phone jack electronically balanced
	output: 2 x XLR M + 1/4 (6,5 mm) TRS
	Phone jack electronically balanced
Indicators	5 point bar LED - Peak, +15, +10, 0, -10 dBu
Power Supply	230 V AC 50 Hz or 115 V AC 60 Hz
Power consumption	< 20 W
Dimensions (WxHxD)	48.3 x 13.3 x 23.2 cm
Weight	5.8 kg (12.8 lb)

GATOR	
System Type	Stereo Gate Compressor
Frequency Response	20 Hz - 20 kHz
Input Impedance	>10 kΩ
S/N Ratio	<-90 dB (20 Hz - 20 kHz unweighted)
Distortion THD	<0.04% @ 1 kHz
Variable key filter	HPF (30 to 4k5 Hz) LPF (400 to 30K Hz) 12 dB/oct.
Gate	threshold range OFF to +15 dBu
	Maximum depth range 20 dB or 80 dB
	Attack time auto <500 µs (from Maximum Depth)
	Release time auto, slow or fast time mode
Output Gain	± 20 dB
Compressor	threshold: -40 dBu to +20 dBu
	ratio: 1:1 to Infinity:1; 60 dB maximum compression
	attack time: auto program-dependent, 3 ms to
	340 ms for 15 dB gain reduction
Outputs	Source Imp: <60 Ω to Min.Load: 600 Ω
Max out.level	+23 dBm into 600 Ω
Connectors	input: 2 x XLR F + 1/4 (6,5 mm) TRS
	Phone jack electronically balanced
	output: 2 x XLR M + 1/4 (6,5 mm) TRS
	Phone jack electronically balanced
	sidechain: 2 x 1/4 (6,5 mm) TRS
Indicators	8 GR bar LED 30, 20, 15, 10, 6, 4, 2,1 dB
	10 led (various)
Power Supply	230 V AC 50 Hz or 115 V AC 60 Hz
Power consumption	< 15 W
Dimensions (WxHxD)	48.3 x 4.4 x 21 cm
Weight	3.6 kg (7.9 lb)

ACCESSORIES

SDC32CT

19" rack 3U module wired with 1 CEE receptacle (32A 3P +N +Gnd h6), 6 Schuko outlets (16A 2P +Gnd) with 3 (2P C16) thermal circuit breakers with switches and tri-phase connection indicator.

SASOX48

19" rack 3U module wired with 4 SOCAPEX connectors (19P) and 8 Speakon connectors for amplified signal distribution in audio systems.

SAMIL37

19" rack 2U module with one (37P) bayonette male connector, 1 (37P) bayonette female connector, 12 XLR3M and 4 XLR3F connectors for audio signal distribution.

PROEL GROUP

Proel Group is a leading global company in the design, manufacture and distribution of audio-video and lighting systems for the world of entertainment and special events as well as for the installations sector, with 5 main companies operating in 120 countries.
PROEL world headquarters are located in central Italy. International markets are covered by a consolidated network of distributors, allowing the company to export its products to more than 120 countries all over the world. In 2008, alongside the current headquarters, Proel opened a state of the art 13,500 sqm dedicated automated logistics facility. Thanks to Asian partners manufacturing, Proel has been providing direct shipments from Asia to international customers, in order to provide efficient structured logistics operation.

The Proel Group of companies consists of:

Proel S.p.A.

Parent company with headquarters located in the province of Teramo, central Italy, is a leader in the design, manufacture and worldwide distribution of professional audio equipment, lighting systems and accessories for the world of entertainment, special events and installations.

Turbosound Ltd.

Award-winning designer and manufacturer of professional sound reinforcement loudspeakers located in the UK. Turbosound produces loudspeakers for the live entertainment and fixed sound system installation markets.

EVR Media S.p.A.

The company operates in both fixed and temporary installations of professional video systems for the world of TV and events. In addition, EVR Media manages schedules and plans for video systems for major users. Located in Udine, north-eastern Italy.

Eurosell S.p.A.

A leader in the distribution of video and led technology, for the rental market, integrated systems and fixed installations. Based in Udine, north-eastern Italy.

Proel America LLC

Based in Miami U.S.A., the company is the distribution, support and logistics office for Proel's products for North, Central and South America.

PROEL is particularly committed to Research & Development in terms of product innovation (increasing product ranges and optimizing product performance) and process innovation (new technologies and new testing techniques).
R&D activities are generally carried out in three facilities, two in Italy and one in Great Britain, provided with state of the art data collection, measurement and monitoring equipment.
Its highly-focused R&D projects allow the company to optimize production cycles and develop new solutions.
Proel has established its current market position as the result of investments in Research and Development, direct products design, maximum and ongoing commitment to quality and innovation, care for the pre/post sales services, and a strong and consolidated distribution network in Italy and worldwide.


Worldwide Headquarters


Logistic Park


R&D Department

PROEL GROUP COMPANY

PROEL

TECHNOLOGY AS ART

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USA

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PROEL
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