

CINEMA SYSTEMS

Complete sound systems for high-end digital cinema installations

We have been designing, developing and manufacturing loudspeakers, amplifiers and electronics for the cinema industry for over 28 years, starting in 1985, and before that, since the early 70's, under the Swedish brand Lövving musik.

We have come to dominate our domestic market, and the international export market are ever growing.

Our product ranges consists of high quality innovative speakers made in Sweden, covering small and medium, to the very largest digital 3D cinema theatres.

All woodwork, metalwork, design, manufacturing and assembly are made in Sweden, resulting in outstanding quality systems, with extremely low distortion levels, very high power handling, high sensitivity and SPL, with next to no service required, for problem-free installations.

All our systems are "scalable" where more modules are added the larger the theatre, from small 2-way passive systems, requiring only one amplifier channel for each screen speaker, to 4-way horn loaded active DSP-controlled systems.

We have also taken the digital cinema screen speaker to next level with the 3-way active CLAM21041 Line array speaker module, where each line array module covers a narrow vertical dispersion of a total of 15 degrees. This technology has been used for many years in theatres, conference centres, live music stages, churches and other facilities where speech, music and sound are in focus, but has not been applicable to cinema installations until now.

A true line array only loses 3 dB for each doubling of distance, where regular cinema speakers, working as point-source, loses 6 dB for each doubling of distance, using linear array technology vastly improves the presence, headroom, clarity, warmth and control.

When adjusting and tuning the cinema sound with a standard point source horn loaded cinema screen speaker, very often you will have to be satisfied with compromises for the overall experience to be durable, where the frequency response and SPL are not the same in all the seats, but within an acceptable margin.

With the CLAM21041, you will be able to control each section of the module individually with the result that you can achieve the same SPL everywhere in the theatre, in all the seats... like it is meant to be!

The clam21041 are have CLF-files for importing into any acoustical prediction software, and are also available in the free EASE focus 2, prediction and acoustical simulation software.

Our range of surround speakers where designed to reproduce a fullrange frequency response down to 50Hz, for perfect timbre matching with our screen speakers, this in combination with high power handling, high sensitivity and low distortion levels, is what makes the Prophon range of surround speakers superior to our competitors.

All Prophon LFE subwoofers are built with high quality, extra reinforced 19 mm. thick medium density fibreboard.

We have several models to cover all sizes of theatres, from small to the very largest. Using only high power, high quality European components in combination with decades of experience results in reliable subwoofers that will never break, with controlled frequency response and very good cone control and headroom.

All subwoofers are available in two versions standard version and High-Power version with the most powerful components available.

- *Screen speakers*
- *Amplifiers*

- *Subwoofers*
- *Digital Signal Processors*

- *Surround speakers*
- *Rack cabinets and racking equipment*



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CINEMA SCREEN SPEAKERS

Two-way and three-way systems



Model:	XD222,
System configuration:	Two-way screen speaker with passive crossover network
Construction:	LF/MF Tuned front-loaded bass reflex HF Aimable and adjustable horn, mounted on a bracket
Components:	LF/MF 2 x 12" HF 1 x 2"- driver mounted on an assymetrical dispersion horn
Frequency range:	50 Hz - 18 kHz
Power handling:	800W RMS / 1600W cont..
Impedance (nom.):	4 Ω
Dispersion(-6dB):	Horizontal 80°, Vertical 60° (assymetrical.)
Sensitivity:	100dB (1W/1m.)
Max SPL (calc.):	131,5 dB @ 1600W
Max SPL (peak):	140 dB (4 x max power handling, 2Pi)
Size (H x B x D):	96 x 52 x 28 cm.
Weight:	42 kg.
Amplifier channels:	1



Modell:	XD2115 (XD211 + XD115)
System configuration:	Thre-way screen speaker, two-way active (LF/MF active) (MF/HF Passive)
Construction:	LF Tuned front-loaded bass reflex MF Closed cabinet HF Aimable and adjustable horn, mounted on a bracket
Components:	LF 1 x 15" MF 2 x 10" /HF 1 x 1"-driver mounted on an assymetrical dispersion horn
System setup - frequency range	LF 50Hz - 250Hz MF 250Hz - 1,5kHz HF 1,5kHz - 19kHz
Power handling:	LF: 700W RMS / 1400W cont.. MF/HF: 500W RMS / 1000W cont..
Impedance (nom.):	LF: 8 Ω MF/HF 4 Ω
Dispersion (-6dB):	Horizontal 80°, vertical 60° (assymetrical)
Sensitivity:	100dB (1W/1m.)
Max SPL (calc.):	134 dB @ 2400W
Max SPL peak	143 dB (4 x max power handling, 2Pi)
Size (H x B x D)	LF: 60 x 52 x 28 cm. MF/HF 86 x 52 x 28 cm.
Weight:	LF: 27,2 kg. MF/HF: 32,1 kg.
Amplifier channels:r	LF: 1 MF/HF: 1



Modell:	XD2125 (XD211 + XD115 x 2 pcs.)
System configuration:	Thre-way screen speaker, two-way active (LF/MF active) (MF/HF Passive)
Construction:	LF Tuned front-loaded bass reflex MF Closed cabinet HF Aimable and adjustable horn, mounted on a bracket
Components:	LF 2 x 15" MF 2 x 10" /HF 1 x 1"-driver mounted on an assymetrical dispersion horn
System setup - frequency range	LF 50Hz - 250Hz MF 250Hz - 1,5kHz HF 1,5kHz - 19kHz
Power handling:	LF: 1400W RMS / 2800W cont.. MF/HF: 500W RMS / 1000W cont..
Impedance (nom.):	LF: 4 Ω MF/HF 4 Ω
Dispersion (-6dB):	Horizontal 80°, vertical 60° (assymetrical)
Sensitivity:	101,5dB (1W/1m.)
Max SPL (calc.):	137 dB @ 3800W
Max SPL peak	146 dB (4 x max power handling, 2Pi)
Size (H x B x D)	LF: 60 x 52 x 28 cm. x 2 MF/HF 86 x 52 x 28 cm.
Weight:	LF: 2 x 27,2 kg. MF/HF: 32,1 kg.
Amplifier channels:r	LF: 1 MF/HF: 1

CINEMA SCREEN SPEAKERS

Three-way and four-way systems



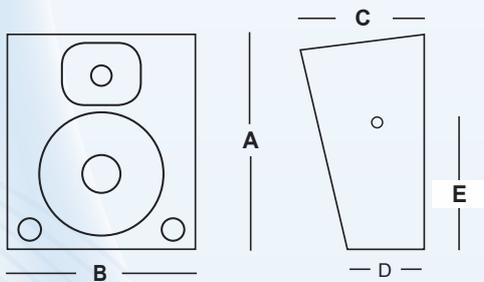
Modell:	XD223 (XD110 + XD215)
System configuration:	Three-way screen speaker, two-way active (LF/MF active) (MF/HF Passive)
Construction:	LF Tuned front-loaded bass reflex MF Horn loaded midrange, assymetrical HF Aimable and adjustable horn
Components:	LF 2 x 15" MF 1 x 10" mounted on an assymetrical dispersion horn HF 1 x 1" driver mounted on an assymetrical dispersion horn
System setup - frequency range	LF 35Hz - 250Hz MF 250Hz - 1,5kHz HF 1,5kHz - 19kHz
Power handling:	LF: 2000W RMS / 4000W cont.. MF/HF: 350W RMS / 700W cont..
Impedance (nom.):	LF: 4 Ω MF/HF 8 Ω
Dispersion (-6dB):	Horizontal 80°, vertical 60° (assymetrical)
Sensitivity:	LF: 100 dB (1W/1m.) MF/HF 108 dB (1W/1m..)
Max SPL (calc.)	LF: 136 dB @ 4000W MF/HF: 136 dB @ 700W
Max SPL peak	142 dB (4 x max power handling, 2Pi)
Size (H x B x D)	LF: 100 x 52 x 50 cm. MF/HF 52 x 52 x 50 cm.
Weight:	LF: 60 kg. MF/HF: 35 kg.
Amplifier channels:	LF: 1 MF/HF: 1
Extra features	Can be installed vertical or horizontal (see pictures)



The specially designed horn with assymetrical horizontal and vertical dispersion, used in all XD-series screenspeakers

Modell:	XD224
System configuration:	Four-way active bi-amplified screen speaker
Construction:	LF: Tuned front-loaded bass reflex MF: Horn loaded midrange, assymetrical HF: Aimable and adjustable horn VHF: Aimable and adjustable horn
Components:	LF: 2 x 15" MF: 1 x 10" mounted on an assymetrical dispersion horn HF: 1 x 5" driver mounted coaxially on an assymetrical horn VHF: 1 x 1" driver mounted coaxially on an assymetrical horn
System setup - frequency range	LF: 35Hz - 250Hz MF: 250Hz - 1,5kHz HF: 1,5kHz - 10kHz VHF: 10kHz-18kHz
Power handling:	LF: 2000W RMS / 4000W cont.. MF: 350W RMS / 700W cont.. HF: 80W RMS / 160W cont.. VHF: 20W RMS / 40W cont.
Impedance (nom.):	LF: 4 Ω MF: 8 Ω HF: 8 Ω VHF 8 Ω
Dispersion (-6dB):	Horizontal 80°, vertical 60° (assymetrical)
Sensitivity:	LF: 100 dB (1W/1m.) MF 108 dB (1W/1m..) HF/VHF 108,5 dB (1W/1m.)
Max SPL (calc.)	System: 137
Max SPL peak	143 dB (4 x max power handling, 2Pi)
Size (H x B x D)	LF: 100 x 52 x 50 cm. MF/HF/VHF 52 x 52 x 50 cm.
Weight:	LF: 60 kg. MF/HF/VHF: 40 kg.
Amplifier channels:	4
Extra features	Can be installed vertical or horizontal (see pictures)

CINEMA SURROUND SPEAKERS



Features

- Tuned, front-loaded bass reflex construction for extended LF reproduction
- Two-way passive models with built-in passive crossover network
- Fullrange frequency response
- Manufactured in Sweden
- High power transducers
- 19 mm. thick extra reinforced medium density fibreboard
- High sensitivity
- High SPL
- High power handling
- Controlled HF dispersion
- Passive bi-amplified with built-in dedicated passive crossover networks
- 15 degree baffle, for best aiming of sound
- Installation brackets included
- 2 x M10 threads in the sides for the adjustable bracket (not included)

Technical specifications M-series cinema surround speakers

Model	Construction	Frequency range -6dB	Sensitivity (1w / 1m) open space Half space (2pi)	Nominell Impedance	Power handling	Max SPL dB@1m. cont.. / Peak*	Dimensions, cm. A x B x C x D x (E)	Low frequency driver	High frequency driver
M38	Two-way bi-amplified bass reflex, with passive crossover	60- 20Hz	95 dB 98 dB	8 ohm	60W RMS 120W cont.	116 dB 125 dB	47 x 49 x 24,5 x 13	8" 200m m.	1" dome tweeter
M48	Two-way bi-amplified bass reflex, with passive crossover	50- 18Hz	99 dB 102 dB	8 ohm	250W RMS 500W cont..	126 dB 135 dB	56 x 40 x 27 x 13 x 35	10" 250 mm.	1" driver 25 mm.
M58	Two-way bi-amplified bass reflex, with passive crossover	43-18Hz	100 dB 103 dB	8 ohm	400W RMS 800W cont..	129 dB 137,5 dB	60 x 40 x 27 x 13 x 35	12" 320 mm.	2" driver 50 mm.

* All Max SPL data are calculated and presented in two ways: continues and Peak, the continues max SPL are the most accurate, but some of our competitors use the peak reference, so we feel obliged to do the same, remember that we suggest that the continues max SPL are used. The Max peak spl are only for your reference. Max SPL peak have the following equation: sensitivity in 2Pi times peak power handling (4 x continues power handling) equals max SPL peak

CINEMA SUBWOOFERS



The latest in Low frequency woofer technology, with external cooling system, ventilated and double wired voice coils, double spiders

Features

- Tuned, front-loaded, bass reflex construction
- Each subwoofer are available in two versions
- High power transducers
- 19 mm. thick, extra reinforced medium density fibreboard
- Ventilated voice coil technology
- Double silicone spiders
- Double wired voice coils
- Reinforced cone suspension
- Optimal for reproducing long hours of low frequency emission
- High sensitivity
- High SPL
- High power handling
- Long X-max excursion
- Manufactured in Sweden

Technical specifications SUB series cinema subwoofers

Model	Construction	Frequency range -6dB	Sensitivity (1w / 1m) open space Half space (2pi)	Nominell Impedance	Power handling	Max SPL dB@1m. cont.. / Peak*	Size / cm. H x W x D	Low frequency driver	Voice coil diameter	Color
SUB18	Bi-amplified bass reflex	30 - 400Hz	99 dB 102 dB	8 ohm	600W RMS 1200W cont.	130 dB 139 dB	73 x 55 x 60	1 x 18" 460 mm.	3" 76 mm.	Black / white
SUB18HP	Bi-amplified bass reflex	30 - 400Hz	97 dB 100 dB	8 ohm	1200W RMS 2400W cont..	130,5 dB 139,5 dB	73 x 55 x 60	1 x 18" 460 mm.	4" 100 mm.	Black / white
SUB6	Bi amplified Bass reflex	30-400Hz	102 dB 105dB	4 ohm	1200W RMS 2400W cont..	135,5 dB 144,5 dB	120 x 60 x 60	2 x 18" 460 mm.	3" 76 mm.	Black / white
SUB6HP	Bi amplified Bass reflex	30-400Hz	100 dB 103 dB	4 ohm	2400W RMS 4200W cont.	136,5 dB 145 dB	120 x 60 x 60	2 x 18" 460 mm.	4" 100 mm.	Black / white
SUB21	Bi-amplified Bass reflex	25-200Hz	97 dB 100dB	4 ohm	1700W RMS 3400W cont..	130,5 dB 140,5 dB	80 x 60 x 67	1 x 21" 530 mm.	4,5" 116 mm.	Black / white
SUB21HP	Bi-amplified Bass reflex	25-200Hz	96 dB 99 dB	4 ohm	2000W RMS 4000W cont..	132 dB 141 dB	80 x 60 x 67	1 x 21" 530 mm.	6" 153 mm.	Black / white

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