

ICLive X Series



The Ultimate Flexibility for
Performance Sound



ICLive X

The ICLive X Series brings a new level of flexibility to integrators, contractors, and rental and staging companies alike to provide the best solution for critical and demanding applications.



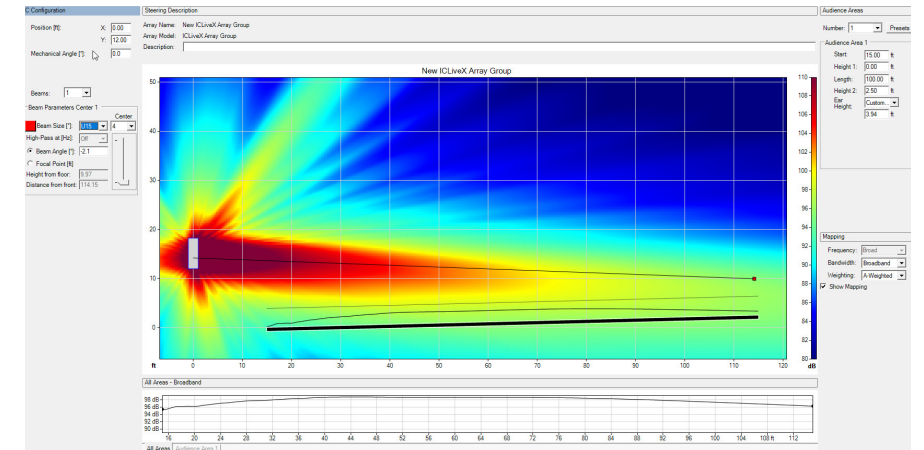
The culmination of over a decade of experience in steerable line arrays, the ICLive X Series is the latest evolution of the medium-format, steerable line array. The ICLX module can be arrayed up to 12 tall or can be used in combination with the ICLX or ICLLX, allowing taller, more directional arrays to be constructed for a surprisingly reasonable cost. The ICLive X Series is the most versatile, high-powered, steerable line array on the market and its extreme flexibility makes it suitable for nearly any live sound application.

The ICLX, ICLXL and ICLLX array modules and matching ICLX-118S subwoofer connect with a simple and nearly invisible, metal-to-metal array system. Accessories like wall-mount hinge kits, RHANG fly bars, and ground-stack adapters make the ICLive X Series simple to install or deploy.

Beam Steering

Beam Steering technology allows the ICLive X Series loudspeakers to tightly control the sound and place it just where it's needed — on the audience — while keeping sound away from other surfaces that may cause echoes and reverberation. Intelligibility is key, and the Renkus-Heinz ICLive X Series ensures that every listener receives the best sound possible.

The Renkus-Heinz RHAON and Beamware applications offer a simple, intuitive interface to a complicated mathematical process. This easy-to-use software allows designers to create multiple beams of sound specifically



tailored to the space. Powerful FIR coefficients are calculated and downloaded into the loudspeaker's amplifier module turning the designed beams into reality.

Inside the loudspeaker amplifier module, each driver has its own amplifier and DSP channel, which, when loaded

with the FIR filters, EQ and Delay, create the steerable beams. Beam Steering is a flexible, robust solution that meets the needs of sound system designers and architects alike. No longer is there a compromise between sound quality and visual appeal.

Advanced DSP

ICLive X Series controls sound with the most advanced, intelligent DSP. Multi-channel Class D digital amplifiers with integral DSP engines control every single array element with programmable precision. High-current audiophile output stages power each individual lightweight, efficient transducer in the array.

In addition to beam steering, the onboard DSP provides a whole host of user-accessible DSP features to equalize, tune and align ICLive X Series loudspeakers. Dante units can be configured as either switched, or redundant network operation.

ASM Waveguide

New for the ICLive X Series is Renkus-Heinz's exclusive Acoustic Source Multiplier (ASM) waveguide. The ASM splits the output of a single compression driver into two, distinct virtual acoustic sources, thus reducing apparent source spacing to an absolute minimum, ensuring gradient-lobe-free performance to very high frequencies.

The ASM allows the HF section to be coaxially mounted in front of the LF section. The coaxial driver arrangement delivers a consistent and symmetrical array of both high frequencies and low frequencies along the entire length of the array, greatly increasing control and steerability.



Dante Connectivity & Networking

A Dante audio network replaces the point-to-point analog and digital connections with a standard IP network that delivers completely lossless audio, massive channel counts and near-infinite signal routing flexibility, all while being incredibly easy to deploy and use.

RHAON II System Manager

The RHAON II System Manager software has been completely redesigned using highly structured modular code for greater stability and expandability. The result is a new, more robust RHAON technology that's faster, more reliable, with a streamlined, intuitive workflow. RHAON II is easy to program, easy to use, and fully compatible with ICLive X Series and legacy Renkus-Heinz products.

RHAON II's new Network-agnostic interface has been designed to work with today's networking protocols as well as those of tomorrow. Currently supporting AVDECC IEEE1722.1, Dante and AES67, RHAON II has been structured to allow easy implementation of new and emerging protocols. Support for multiple NICs and (where supported) wireless operation makes RHAON II easy to integrate into an existing network infrastructure.

ICLive X Applications



Performance Spaces

The ICLive X Series delivers full-coverage, high-quality sound in performance spaces, enhancing artist shows and performances. Beam steering technology places sound precisely on audience members and away from reflective surfaces and performers, greatly reducing echoes and feedback.



Houses of Worship

The ICLive X Series helps keep congregation members attentive and engaged in house of worship spaces. Digital beam steering keeps sound on the congregation, away from reflective surfaces ensuring high intelligibility for high levels of engagement and reduced listener fatigue.



Convention Centers

Provide guests and visitors with clear, intelligible sound with the ICLive X Series. Even in large spaces with high ambient noise levels, the ICLive X Series ensures announcements and key information steered directly into areas they are needed for successful event gatherings.



Themed Attractions

The discrete ICLive X Series provides guests with a fun and immersive experience by ensuring precise placement of facility announcements, sound effects and background music without the aesthetic intrusion of larger loudspeakers. The optional weatherized design allows them to be exposed to the elements worry-free.

Accessories



Stadiums

Good sound is critical for fans enjoying a game in a stadium or arena—whether it's to hear the music in the warm-up, the latest play in the game or important announcements. The ICLive X Series provides clear, intelligible sound to fans in the crowd, while its optional weather proofing ensures the speakers operate in harsh outdoor weather conditions.



E-Sports

The ICLive X Series helps competitive gaming arenas create an immersive experience for both gamers and fans. Crystal clear sound and consistent coverage provide large e-sports venues with the finishing touch for a great game every time.



Nightlife

With the ICLive X Series, crystal clear music is placed directly on guests for a lively nightlife experience they won't forget. The sound system is the centerpiece of the party, and the flexibility of the ICLive X arrays guarantees we can supply the right fit for your venue. Its low-profile design blends into the space, so guests can enjoy the music and the space's branding and aesthetics.



Live Portable Sound

The ICLive X Series delivers unmatched sound coverage and consistency for live sound applications. Its portable design and range of accessories allow for flexibility and efficient deployments, reducing man-hour requirements on the job. Digital beam-steering technology means coverage can be adjusted on the fly, eliminating the need to rehang arrays, saving both time and money while ensuring the absolute best sound experience for attendees. Optional weather proofing ensures the ICLive X will rock night after night, even in the worst inclement weather.

Mounting:

ICLive X, ICLive XL, and ICLive LX modules are shipped individually. Arrays of multiple cabinets are assembled using the array hardware on the loudspeakers. Every ICLive X series cabinet has array bars on each side and the back. When building arrays these bars pin together with three quick-release (QR) pins. The QR pins are tethered to the cabinets with short leashes. The same QR pins are used to attach the RHANG-ICLX flybar and the ICLX-GSA ground stack adaptor plate. The ICLX-GSA is used to attach ICLive X arrays to associated Renkus-Heinz subwoofers.

Install versions of the ICLive X series can be mounted to a wall with a hinge kit mounting system. The hinges are pintle and gudgeon separable hinges. The male, pintle, half mounts to the wall or other supporting structure, the female, gudgeon, half mounts to the loudspeaker cabinet.

HK-ICLX (b or w) – Pair of ICLive X Hinge Kit Assemblies

HK-ICLX1 – Single ICLive X Hinge Kit Assembly

RHANG-ICLX – Flybar for ICLX Arrays

ICLX-GSA – Ground Stack Adapter (mates to subwoofer, max 4 tall or equivalent)

ICLX-GSA-SP – Ground Stack Adapter Stability Plate (free standing, max 4 tall or equivalent)

POLE-101 – Extending black anodized 35-inch (880 mm) aluminum tube for mounting full range cabinets to subwoofers with M20 screw mount

ICLX-QRP-KIT – Replacement ICLive X Quick Release Pins, set of three

Cables:

ICLive X modules connect to each other to form a single array for Beam steering. Three connections are required, AC mains power, Audio and Data. On the Dante-equipped units, the audio and data are both carried on the Ethernet data connection.

CBL-DLK-L1 – Looping Cable, Ethercon, 21.5-inch

CBL-XLR-L1 – Looping Cable, XLR-M to XLR-F, 21.5-inch long, for Analog or AES Audio

CBL-PWRLK-L1 – Looping Cable, True 1 Powercon, 21.5-inch

CBL-DLK-L2 – Looping Cable, Ethercon, 48-inch long

CBL-XLR-L2 – Looping Cable, XLR-M to XLR-F, 48-inch, for Analog or AES Audio

CBL-PWRLK-L2 – Looping Cable, True 1 Powercon, 48-inch

Transportation:

DOLLY-ICLX – Transportation dolly for up to eight ICLX, or 4 ICLXL/ICLLX

COVER-ICLX – Soft cover for ICLX, includes cable pocket

COVER-ICLXL – Soft cover for ICLXL, includes cable pocket

COVER-ICLLX – Soft cover for ICLLX, includes cable pocket

COVER-ICLX-118S - Soft cover for ICLX-118S, includes cable pocket

System Examples

ICLX, ICLX-118S

Loudspeakers used:

ICLX-RD (mobile) – x1

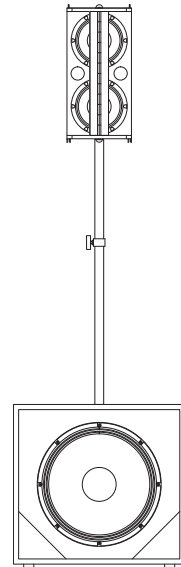
ICLX-118S-RD (mobile) – x1

Rigging Accessories:

POLE-101

Applications:

The ICLX and ICLX-118S used singly make for the ideal solution for small rooms requiring high output, sleek aesthetics, and great acoustics. This system is as simple to use as a traditional point source but has the added benefit of steerability, which delivers coverage consistency and reductions in room reverberation that traditional point source systems can't match.



ICLXL, ICLX, 2x ICLX-118S

Loudspeakers used:

ICLX-RD (mobile) – x1

ICLXL-RD (mobile) – x1

ICLX-118S-RD (mobile) – x2

Rigging Accessories:

ICLX-GSAB – x1

Cabling Accessories:

CBL-XLR-L1 – x1

CBL-DLK-L1 – x1

CBL-PWRLK-L1 – x1

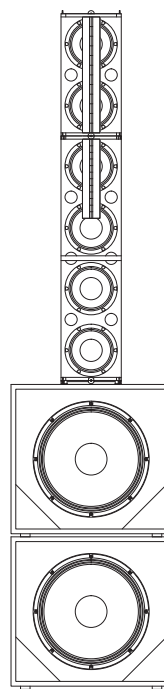
CBL-XLR-L2 – x2

CBL-DLK-L2 – x2

CBL-PWRLK-L2 – x2

Applications:

When using the ICLX and ICLXL on top of two ICLX-118S subwoofers, this compact but powerful mobile system is able to cover significantly large rooms with crystal clear, intelligible sound. This combination offers a refined aesthetic that will disappear into stage design for medium to large scale Corporate AV, but still maintains the ability to achieve incredibly high SPL for indoor or outdoor concerts.



System Examples

ICLX x8, ICLX-118S x8

Loudspeakers Used:

ICLX-RD (mobile) – x8

ICLX-118S-RD (mobile) – x8 (Cardioid Configuration)

Rigging/Transport Accessories:

RHANG-ICLX

DOLLY-ICLX – x2

COVER-ICLX-118S – x8

Cabling Accessories:

CBL-XLR-L1 – x7

CBL-DLK-L1 – x7

CBL-PWRLK-L1 – x6 (8x ICLX requires at least 2 AC Circuits)

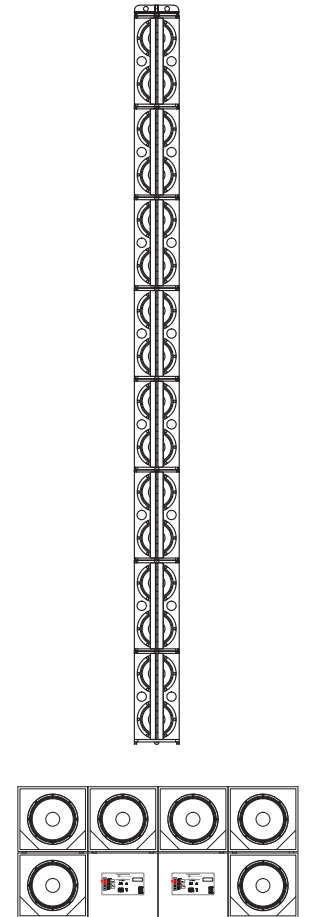
CBL-XLR-L2 – x7

CBL-DLK-L2 – x7

CBL-PWRLK-L2 – x6 (8x ICLX-118S requires at least 2 AC Circuits)

Applications:

This flown system of eight ICLX modules is power-dense and can be used to cover incredibly large indoor and outdoor spaces with high sound pressure levels from a visually discrete column array system. Two sets of four ICLX-118S subwoofers in one of our recommended cardioid array configurations help to reduce sub-bass levels behind the arrays assisting with offsite noise limitations. This system can be deployed in just minutes thanks to the simple rigging hardware and RHANG system and packs away into a truck-efficient dolly for easy transport.



ICLXL, ICLX x2, ICLLX

Loudspeakers Used:

ICLXL-RD (fixed) – x1

ICLX-RD (fixed) – x2

ICLLX-RD (fixed) – x1

Rigging Accessories:

HK-ICLX – x2

Applications:

An ICLX System combination like this has incredibly high directivity, allowing it to deliver consistent coverage and high intelligibility even in the largest theaters, performing arts centers, concert venues and more. Unlike most other systems that can deliver performance of this caliber, the ICLive X's column form factor blends into any architecture with its flush, wall-mounted arrangement and optional custom finishes.





ICLive X Series Array Module: Specifications

ICLX, ICLXL, ICLLX

Frequency Response	All Models: 75 Hz to 20 kHz (-10 dB)
Sensitivity	1.4 volt for rated output, analog
Calculated Max. SPL	ICLX-RN-BK: 132 dB Peak SPL @1m, 102 dB @30m ICLXL-RN-BK: 138 dB Peak SPL @1m, 108 dB @30m ICLLX-RN-BK: 138 dB Peak SPL @1m, 108 dB @30m
Dispersion	ICLX / ICLXL / ICLLX: 120° horizontal x adjustable vertical
Beam Control	ICLX: Steerable from 1.5 kHz and up Directivity from 750 Hz and up When used singly ICLXL / ICLLX: Steerable from 750 Hz and up Directivity from 375 Hz and up When used singly
Aiming	Adjustable from -30° to +30°
Vertical Opening Angles	10° to 45° (computer adjustable, array height dependent)
Transducers	Woofer: SSL8-22 High Frequency Driver: SSD-DE7-8
Connector	2 x XLR-3, In & Loop-out, Analog and AES 2 x RJ45, primary & secondary
Enclosure	13-ply birch plywood
Grille	16 GA powder-coated, plated steel
Finish	Black (RAL9010) or White (RAL9011) paint
Mounting	12 x M6 UMH points; 1 x 1-3/8" / 35 mm pole socket. R-HANG Array hardware.
Dimensions	ICLX: 9-1/2" w x 19-1/4" h x 13-1/4" d 241 mm w x 489 mm h x 337 mm d ICLXL / ICLLX: 9-1/2" w x 38-1/2" h x 13-1/4" d 241 mm w x 978 mm h x 337 mm d

Amplifier

Power Output	Eight channels, 100 watts, @ 8 ohms, ea. Multi-band peak and thermal limiting on all channels protects the drivers.
Mains Voltage	100-240 volts, 50/60 Hz auto-switching
Power Consumption	Idle: 800 mW. 1/8 power: 385 W (onset of limiting); 1/3 power: 1340 W (hard limiting)
Power Connector	Neutrik powerCON TRUE-1
Audio Connections	2 x XLR-3, In & Loop-out, Analog and AES, 2 x RJ45 Ethernet
Latency	6.25ms
User DSP	Eight fully parametric filters, high and low shelf, high and low pass filters, delay to 340 ms.
Software	RHAON II
Max. Input Level	+22 dBu, Analog; 0 dBFS digital
Network Connections	2 x RJ45, Looping Ethernet/RHAON
Note	All analog inputs and outputs comply with AES Standard 48-2005 on interconnecting, grounding and shielding.

ICLX-118S Specifications

Frequency Response	35Hz to 120Hz (+/- 3dB)
Sensitivity	1 volt for rated output, analog
Calculated Max. SPL	132 dB peak
Crossover Frequency	100 Hz low-pass
Power Handling	LF1000 W AES @ 4 ohms
Latency	6 ms plus any digital transport latency
Transducers	Woofer: SSL18-7 Enclosure: 0.75 in./19 mm Lite Ply® plywood
Connector	2 x XLR-3, In & Loop-out, Analog and AES, 2 x RJ45 Primary & Secondary Ethernet
Grille	16 GA powder-coated, plated steel
Finish	Black (RAL9010) or White (RAL9011) paint Custom color matching available
Mounting	16 x M10 threaded Universal Mounting Points M20 Threaded Pole adapter
Dimensions	25-1/4" w x 23-1/2" h x 20" d / 640 mm w x 597 mm h x 508 mm d
Weight	1104 lbs/47 kg.

SA2000 Amplifier Specifications

SA000-RN

Audio Connections	2 x XLR-3, In & Loop-out, Analog and AES 2 x RJ45 Primary & Looping Ethernet
Latency	6.25 ms
Max. Input Level	+22 dBu, Analog, 0 dBFS digital
Network Connections	2 x RJ45, Looping Ethernet/RHAON
User DSP	Eight fully parametric filters, high and low shelf, high and low pass filters, delay to 340 ms.
Software	RHAON II
Power Output	LF= 2000 watts, @ 8 oms
Mains Voltage	100-240 volts, 50/60 Hz auto-switching
Power Consumption	Idle: 200 mW. 1/8 power: 480 W (onset of limiting) 1/3 power: 1200 W (hard limiting)
Power Connector	Neutrik powerCON TRUE-1

SA2000-RD

Audio Connections	2 x XLR-3, In & Loop-out, Analog and AES 2 x RJ45 Ethernet/Dante Primary & Secondary
Latency	6.25 ms Analog & AES 6.25 ms + Dante transport latency
Max. Input Level	+22 dBu, Analog, 0 dBFS digital
Network Connections	2 x RJ45 Dante Primary & Secondary Ethernet/RHAON (Note: Dante and RHAON share a single or redundant Ethernet network.)
User DSP	Eight fully parametric filters, high and low shelf, high and low pass filters, delay to 340 ms.
Software	RHAON II
Power Output	LF= 2000 watts, @ 8 oms
Mains Voltage	100-240 volts, 50/60 Hz auto-switching
Power Consumption	2 x RJ45, Looping Ethernet/RHAON Idle: 200 mW. 1/8 power: 480 W (onset of limiting) 1/3 power: 1200 W (hard limiting)
Power Connector	Neutrik powerCON TRUE-1



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