

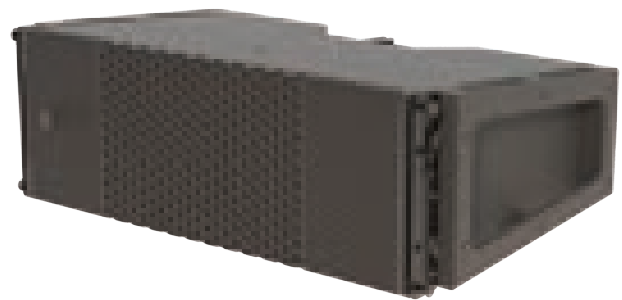
Following on from the highly-anticipated release of the large format HALO Arena system early in 2018, EM Acoustics is proud to announce the third system in the family, HALO-B. Intended to bridge the divide in both physical size and overall system output between HALO-A and HALO-C, HALO-B follows the same design principles as HALO-A to provide consistent, predictable performance in a convenient, compact and flexible package.

FEATURES AND BENEFITS

- Signature EM Acoustics passive crossover for unprecedented frequency and phase response
- Consistent and predictable horizontal dispersion pattern
- Compact, rigid and lightweight plywood enclosure means less truck space and smaller motors
- Two high power 8" LF drivers, four 1" exit ring-diaphragm HF drivers on a plane-wave array
- Intuitive, safe rigging for flown and groundstacked systems

APPLICATIONS

- Concert tours and festivals
- Live music venues
- Houses of worship
- Conference and corporate A/V
- Themed environments
- Sports facilities
- Delays and fills with HALO-A systems
- Long throw solution with HALO-C systems



HALO-B is intended to fulfill three core tasks - be a companion system to the larger HALO-A, be a companion system to the smaller HALO-C, and be a system in its own right. The same core design principle of the maximum headroom possible means that HALO-B delivers a consistent performance across all SPL levels. HALO-B has been built to be equally comfortable in both fixed installation and mobile applications.

A single HALO-B exhibits a flat, free-field frequency response from 65Hz to 20kHz (± 3 dB) and a phase response which is ± 20 degrees between 150Hz and 18kHz. Due to the unique loading technique applied to the low frequency drivers, combined with the high frequency waveguide, the dispersion pattern control is maintained down to 350Hz.

Similar to HALO-A yet scaled down, HALO-B uses a proprietary emulation manifold, which combines the energy of four 1" (25mm) exit ring-radiator compression drivers into a plane-wave array. This assembly gives not only a very significant moving area for the high frequency section, but provides twice the headroom of other comparable systems along the same principles as HALO-A. Additionally, the use of ring-radiator compression drivers significantly reduces the 3rd harmonic distortion, result-

ing in a far smoother and more natural sonic character. Working alongside these four high frequency drivers are a pair of high power 2.5" (64mm) voice coil 8" (203mm) low frequency transducers.

These two powerful drive units, combined with optimally-tuned low turbulence porting and generous cabinet volume ensure HALO-B has a low frequency performance to match the stunning highs. Keeping HALO-B as a two-way system reduces the off-axis parallax issues to a single crossover point, and through tireless research and development this issue has been almost completely eradicated.

The HALO-B enclosure is constructed from premium 15mm and 30mm (5/8" and 1 3/16") multi-laminate Baltic birch plywood - rebated, screwed and glued together for maximum strength. Intelligent internal bracing, combined with the unique low-loss porting structure minimises panel flexure - thereby removing unwanted resonances but still keeping the overall enclosure weight low. The enclosure is finished in a polyurethane coating, which as well as being far tougher than the conventional water-based paints used on other products, offers HALO-B a significant level of weather resistance without any further treatment.



The flying hardware has been built with touring flexibility and reliability in mind. HALO-B uses a 3-point system, utilising quick release pins as you would expect. Array angles can be pre-set on individual elements whilst stored on their transit wheelcart. As the array is lifted the rear links move to their pre-set array angles, and a final pin fixes everything in position. Ultra-high tensile steel parts form the core of the 3-point system, which is coated with Xylan™ - a fluoropolymer coating which contains PTFE for both lubrication and impact resistance. Arrays of up to 24 elements can be

safely assembled with above-regulation safety factors.

HALO-B requires two amplifier channels and makes use of the latest in FIR DSP technology - as such it must be used with the DQ Series of advanced system amplifiers. Using these amplifiers a maximum of eight HALO-B enclosures could be driven from a single amplifier (DQ20), although six is recommended as a maximum for full output.

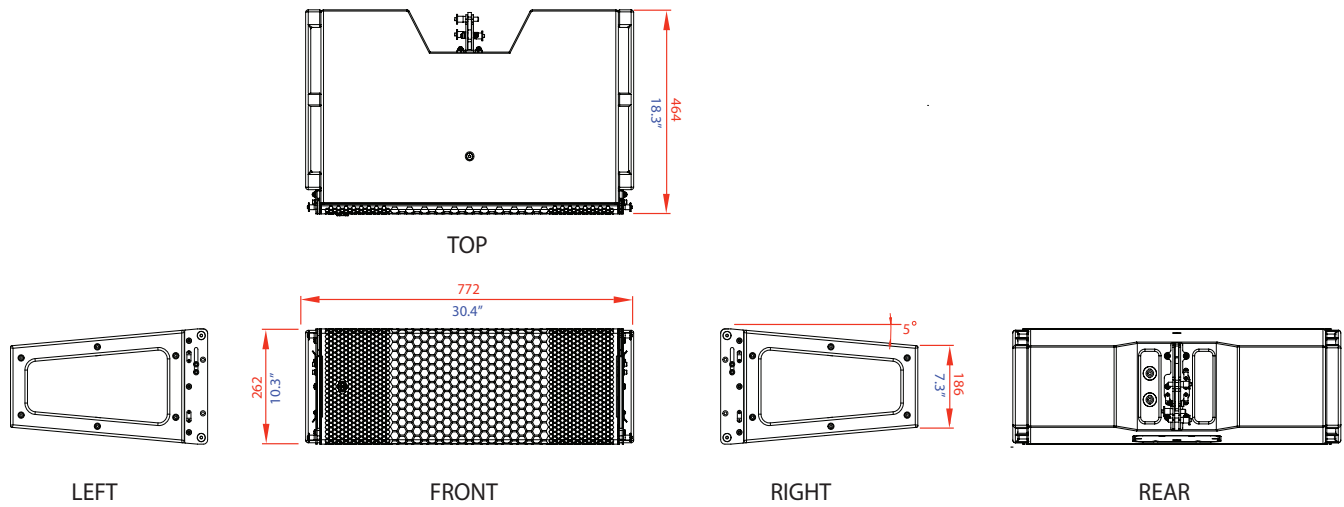
TECHNICAL SPECIFICATIONS

ENCLOSURE TYPE:	Two-way reflex loaded line array element
DIMENSIONS (HxWxD)	262 x 772 x 464mm (10.3" x 30.4" x 18.3")
NET/SHIPPING WEIGHT:	29.5/32.5kg (65/71lbs)
FREQUENCY RESPONSE¹:	65Hz - 20kHz ± 3dB
SENSITIVITY²:	94dB
DISPERSION³:	110° horizontal
DRIVE UNITS:	LF: 2 x 2.5" (64mm) voice coil neodymium 8" (203mm) drive units HF: 4 x 1.5" (38mm) diaphragm, 1" (25mm) exit ring-diaphragm neodymium HF drive units on bespoke plane-wave manifold
CABINETS PER AMPLIFIER	DQ6: 2, DQ10: 4, DQ20: 8
POWER HANDLING:	LF: 600W RMS, 1200W program; HF: 140W RMS, 280W program
MAXIMUM SPL⁴:	135dB continuous, 141dB peak
NOMINAL IMPEDANCE:	LF: 8 ohms; HF: 16 ohms
CROSSOVER:	External active, use only with DQ series amplifiers
CONNECTORS:	2 x Neutrik® speakON™ NLT4MP
ENCLOSURE:	15 and 30mm (5/8" and 1 3/16") multi-laminate Birch plywood - rebated, screwed and glued together. Finished in impact and weather resistant black polyurethane, or textured white paint
RIGGING & HARDWARE:	3-point system, ultra-high tensile steel. Enclosure hardware rated to 24 elements at 10:1 safety factor
GRILLE:	Powder coated stainless steel backed with acoustically transparent fabric
OPTIONS:	Colours/Connector options for outdoor install
ACCESSORIES:	FG-HALO-B master flying grid CG-HALO-B compact flying grid EXT-HALO-B extension arm for CG-HALO-B SM-HALO-B simple flying mount GS-HALO-B ground stack plate WC-HALO-B quad enclosure transit wheelcart TC-HALO-B eight-enclosure padded touring cover
SPARE PARTS	DU-807 8" drive unit CDU-1005-16 1" exit compression drive unit RD-1005-16 replacement HF diaphragm Pin-0.33/0.625 replacement locking pin (front) Pin-0.375/0.813 replacement locking pin (rear) RFG-HALO-B replacement grille/fabric

NOTES ON MEASUREMENT CONDITIONS:

¹Measured on-axis at 2m in an anechoic environment and referenced to 1m. ²Measured in half space at 2m with 4W sine wave input and referenced to 1m. ³Nominal dispersion, measured in an anechoic environment and averaged over stated bandwidth. ⁴Calculated and verified by subjective listening test of familiar program material.

ENGINEERING DRAWING

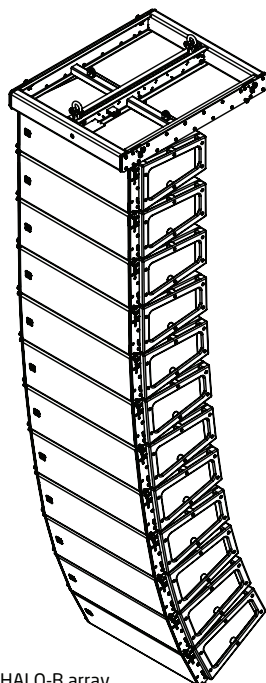


ENCLOSURE OPTIONS

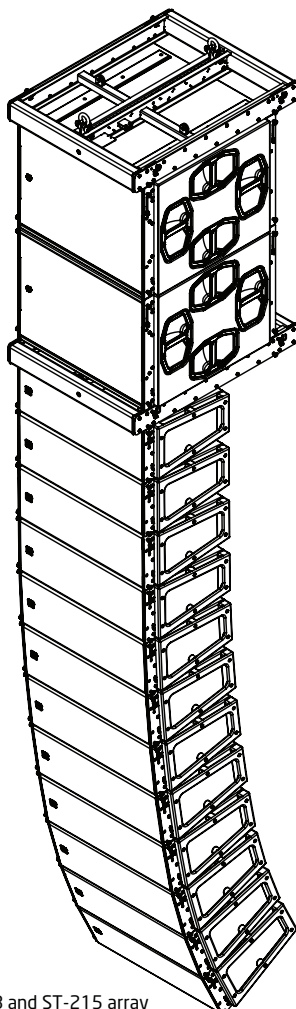
HALO-B loudspeakers are available as standard in black 3-step impact resistant polyurethane finish. All other colours, including white, are treated as custom; extended lead times and set up costs apply. HALO-B loudspeakers can be supplied as an outdoor version (OD), finished in the same black weather-resistant 3-step polyurethane coating. HALO-B is already inherently weather resistant, with a stainless steel grille and IP54 rated connectors. For permanent outdoor use, alternative connector options can be specified as well as cabinet modifications to customer requirements. Please contact your EM Acoustics representative for details.

RIGGING EXAMPLES

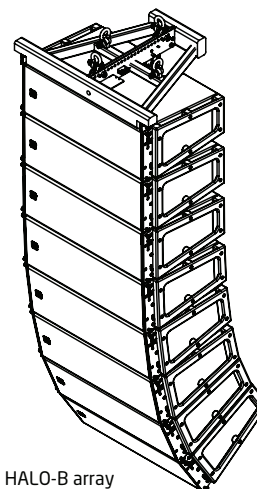
A wide variety of accessories are available for rigging HALO-B enclosures both in flown and groundstacked configurations. Please consult the separate rigging hardware datasheet for more information on these different options.



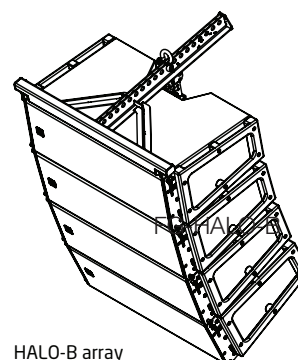
HALO-B array
with FG-HALO-B



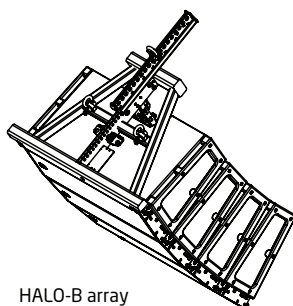
HALO-B and ST-215 array
with 2 x FG-HALO-B



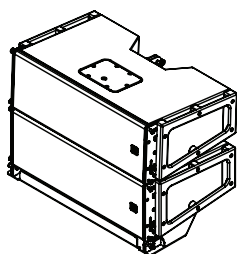
HALO-B array
with CG-HALO-B



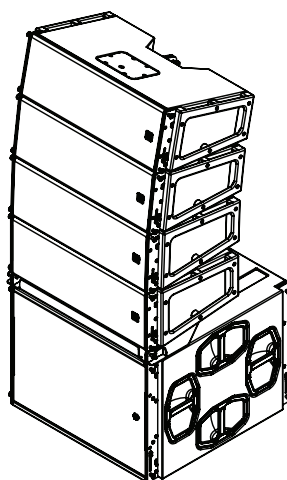
HALO-B array
with SM-HALO-B



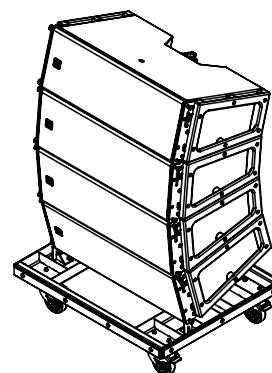
HALO-B array
with CG-HALO-B
and EXT-HALO-B



Ground stack
with GS-HALO-B



Ground stack on ST-215
with GS-HALO-B



WC-HALO-B
transit wheelcart