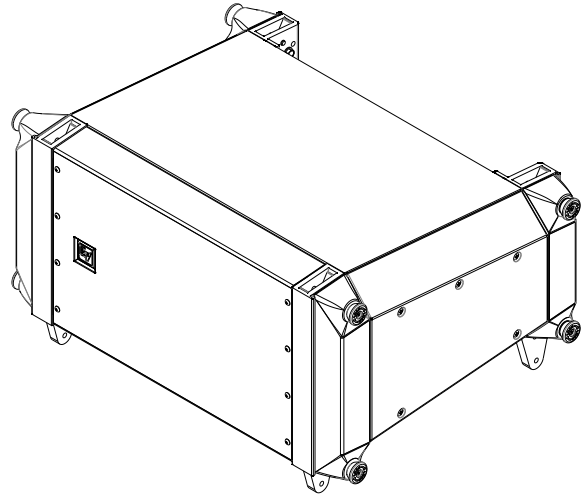


X2-212/120



- **IRS** – Integrated Rigging System
- Proprietary EV FIR-Drive
- **MBH** – Mid-Band Hydra Line Source Technology
- **PDH** – Pin Diffraction Hydra



The X2-212/120 from Electro-Voice is a two-way vertical line array loudspeaker that can be used in a wide variety of applications where wide bandwidth, vertical and horizontal directivity control, and high efficiency are required in a compact cost-effective package.

The high frequency section of the X2-212/120 utilizes two (2) ND6A high-output large format 3-inch titanium compression drivers directly coupled to a pair of PDH Plane Wave Generators on a 120° waveguide optimized for uniform pattern control and smooth, linear response. The low frequency section utilizes a DVN3125 12-inch neodymium woofer which was developed using Finite Element Analysis to optimize motor, suspension, and electrical design for very low distortion, high efficiency, and maximum intelligibility at high SPL. The MBH effectively emulates the acoustic behavior of a double line of four (4) 3-inch point sources to deliver superior mid-band coupling while maintaining the efficiency, power, and bandwidth of a 12-inch transducer. The Bi-amp only X2-212/120 requires proprietary Electro-Voice FIR-Drive.

Electro-Voice FIR-Drive is the combination of *brick wall* crossovers, phase correction, FIR EQ, peak anticipation limiter and Thermal Limiter. These technologies yield superior, nearly inaudible transducer protection with linear summation, smooth off-axis response, and unparalleled acoustical performance over the critical vocal and instrument range regardless of array size.

The X2-212/120 is a premium solution for demanding live sound reinforcement and fixed-install applications. The vertical trapezoidal enclosure is constructed of weather-resistant birch and coated with EVCoat for enhanced durability. The enclosure features the IRS, a captive twist-lock multi-angle arraying system designed by Electro-Voice to significantly reduce load-in/load-out time of any size array. IRS has been engineered with the flexibility to deploy a system using the two (2) most common methods of array set-up:

- Compression method by using a pull-up kit (Sold separately).
- Fixed angles locked by using secondary rigging pins (Included).

X2-212/120 with IRS rigging is rated for use for up to 24 elements for normal arrays. **LAPS 3** or higher (Line Array Prediction Software) accurately provides fast array configuration for coverage results, rigging details and allowed rigging configurations. It also provides information for the creation of steered/shaped subwoofer arrays.

The input panel provides dual Neutrik NL8 connectors for fast connectivity between loudspeakers.

X2-212/120 is Bi-amp operation only.

The advanced acoustic and mechanical designs of X2 series loudspeakers, combined with LAPS 3, provide the tools and flexibility to easily design and deploy high performance vertical line array systems.

X2-212/120 is designed to be used as a wide coverage system using all 120° elements, or as the near-field element in a combined line array positioned below 90° elements.

Technical specifications

Freq. Response (-3 dB):	52 Hz - 19 kHz ¹
Horizontal Coverage:	120°
Vertical Coverage:	Array dependent
Recommended High-Pass Freq.:	50 Hz
Max Calculated SPL:	145 db Peak ²
Configuration:	Bi-amp
LF Transducer:	DVN3125, 12-in (305 mm) driver
LF Axial Sensitivity:	101 db (1 W/1 m) ⁴
LF Power Handling:	500 W Continuous, 2000 W Peak
LF Impedance:	8 Ω (nominal), 6.1 Ω (min)
HF Transducer:	2 x ND6A, 3-in (76.2 mm) diaphragm compression driver
HF Axial Sensitivity:	111 db (1 W/1 m) ⁴
HF Power Handling:	150 W Continuous, 600 W Peak ³
HF Impedance:	8 Ω (nominal), 6.0 Ω (min)
Connectors:	Dual NL8 type connector
Enclosure:	13-ply weather resistant birch with EVCcoat
Grille:	16 GA powder coated galvanized
Suspension:	IRS—Integrated Rigging System
Dimensions (H x W x D):	13.5 in x 28.77 in x 12.04 in (342.9 mm x 730.8 mm x 534.4 mm)
Net Weight:	93 lb (42.2 kg)
Shipping Weight:	107 lb (48.5 kg)

¹Full-space anechoic array performance with FIR-Drive preset.

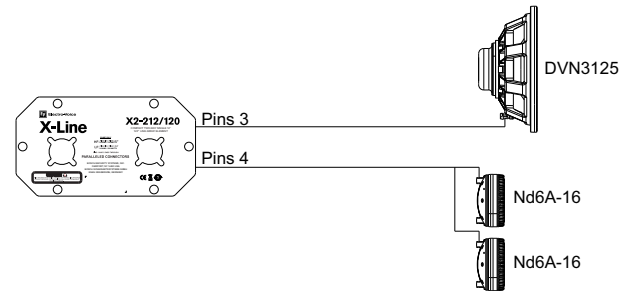
²Full-space measurement of HF section of 4 elements. SPL adjusted for 1m distance.

³AES 2-1984 and ANSI S4.26-1984 power test.

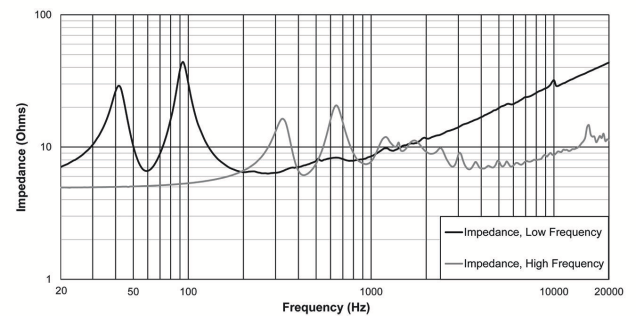
⁴Full-space anechoic measurement of a single element.

System overview

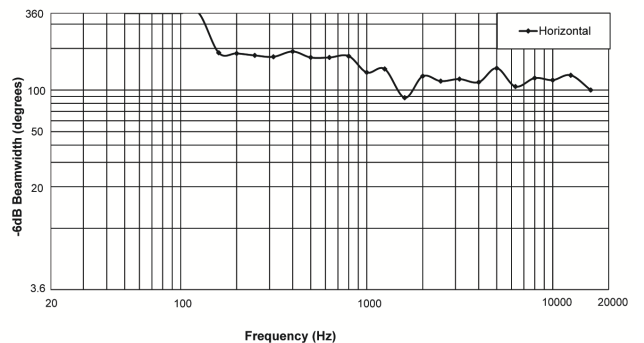
Block Diagram:



Impedance:



Beamwidth (Active):



Notice!

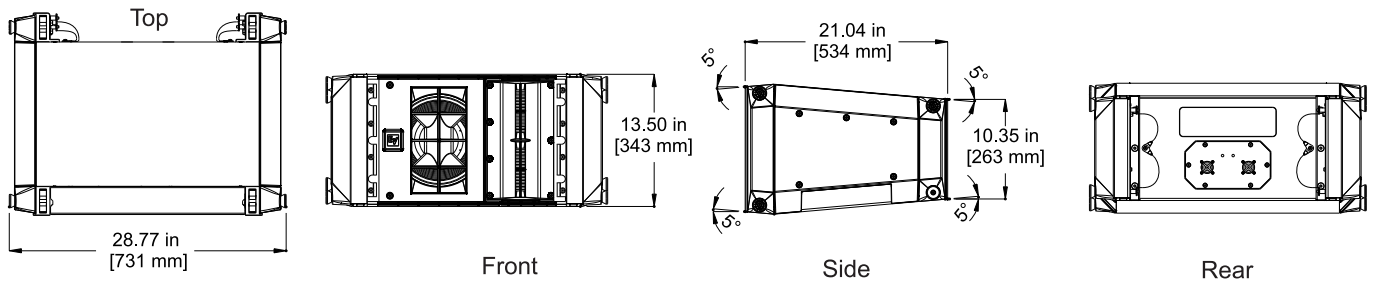
Using X2-212/120 DSP FIR-Drive settings for the Beamwidth.



Caution!

This Electro-Voice loudspeaker should be suspended overhead only in accordance with the procedures and limitations specified. This system should be suspended with certified rigging hardware by an authorized rigging professional and in complete compliance with local, state, and federal overhead suspension ordinances.

Dimensions:



Notice!

Acoustic measurement reference axis is the center of the grille.

Architectural and Engineering Specifications:

The loudspeaker system shall be a two-way bi-amped system with dual NL8 type input connectors, where pins 4 +/- shall be wired to the high-frequency drivers and pins 3 +/- shall be wired to the low frequency transducer. Pins 2 +/- and 1 +/- shall be wired as pass thru between the two input connectors. The system shall have a 12-inch low-frequency transducer with a nominal impedance of 8 ohms and a 3-inch aluminum wire voice coil shall be coupled to a Mid-Band-Hydra vertical and horizontal wave shaping device. The low-frequency transducer shall have a power-handling capacity of 500 watts (per AES 2-1984 and ANSI S4.26-1984). The high-frequency section shall employ two 3-inch aluminum wire voice coil compression drivers, each with a titanium dome, mounted on Pin-Diffraction-Hydra planar wave generators coupled to a 120° horizontal by 10° vertical waveguide. The two high-frequency drivers shall be connected in parallel for a high-frequency section nominal impedance of 8 ohms, shall have a power handling capacity of 150 watts (per AES 2-1984 and ANSI S4.26-1984). The loudspeaker enclosure shall be constructed of 18 mm and 12 mm, birch plywood and shall be trapezoidal in shape. The wedge angle shall be 10°. The grille shall be constructed from 16 GA powder-coated galvaneal backed with acoustically transparent fabric. The system shall be capable of very high-level operation with a bandwidth of 52 Hz to 19 kHz (-3 dB down point). The system dimensions shall be 730.8 mm (28.8 inches) wide by 342.9 mm (13.5 inches) high by 534.4 mm (21.0 inches) deep. The system shall employ four point integrated flying hardware with captive rigging pins for vertical line array system configuration. Net weight shall be 42.2 kg (93 lb). The loudspeaker shall be the X2-212/120 from Electro-Voice.

Compatible System Solutions:

N8000-1500	N8000-1500 NETMAX Controller including DSP-2 Extension for a total of 1800 MIPS processing power, 120 V. * This must be ordered as two (2) separate items: (1) N8000 120 V and (1) DSP-2. ¹
DM-1	DM-1 NetMax Dante audio network module
TG7	Tour Grade 7 Power Amplifier ^{1,2}
RCM-28	OMNEO Network and DSP Module for Tour Grade Amplifiers

¹Contact your sales representative for available voltage versions.

²Maximum recommended three (3) elements in parallel for a 2.6 ohm load.

Notice!



Do not mix X1 and X2 full-range loudspeaker model types in the same vertical array. Although enclosure and rigging is identical for X1 and X2 line array elements they are designed to use only one (1) model type in a vertical array.

Ordering information

X2-212/120

X2 high performance compact 2-way 1 x 12-inch 120° line array; black
Order number **X2-212/120**

Accessories

X12TC-GRID

Compact grid for up to 24 X1 or X2 tops, black
Order number **X12TC-GRID**

X12TE-GRID

Extended grid for up to 24 X1 or X2 tops, black
Order number **X12TE-GRID**

X12PU-BGK

Pull up bottom grid kit for X1/X2 tops, black
Order number **X12PU-BGK**

X12T-DOLLY

Dolly for six X1 or X2 tops, black

Order number **X12T-DOLLY**

Represented by:

Germany:

Bosch Sicherheitssysteme GmbH
Robert-Bosch-Ring 5
85630 Grasbrunn
Germany

Bosch Security Systems, Inc.
12000 Portland Avenue South
Burnsville MN 55337
USA

www.electrovoice.com