



# TECHNICAL SPECIFICATIONS CH491

## DESCRIPTION

A 2-way mid/high system (passive crossover) housed in a trapezoidal enclosure. Includes a horn-loaded 10-in midrange cone and a 1-in exit compression driver on a 90 x 45 constant directivity horn.

## APPLICATIONS

The CH491 compact Virtual Array mid/high module works with BH or BV Series LF systems to create true 3-way arrays in permanent installations. 3-way design dramatically improves the quality of vocal reproduction while the cone-driven midrange horn extends pattern control into the lower octaves. Also effective as a stand-alone, voice-only system. Comprehensive 3/8"-16 mounting/suspension points. Six year warranty.

Applications include:

- Stadiums
- Arenas
- Convention Centers
- Large HOW's
- Small HOW's
- Major Malls

## DESCRIPTIVE DATA

Part Number	999096
Product Group	I
MF Subsystem & Loading	1x 10-in Horn-Loaded Cone
HF Subsystem & Loading	1x 1-in Exit Compression Driver on Constant Directivity Horn
System Configuration	2-way, mid/high
Powering Configuration(s)	Passive MF/HF Crossover
Recommended High-Pass Frequency (24 dB/Octave)	125Hz
Cabinet Type (shape)	Trapezoidal
Enclosure Materials	Baltic Birch Plywood
Finish	Black Catalyzed Polyurethane
Connectors	4-pin Barrier Strip & 1x Neutrik NL4 Speakon
Suspension Hardware	(20) 3/8"-16 Threaded Mounting/Suspension Points (5 each Top and Bottom, 4 per Side, 2 on rear)
Grill	Vinyl Coated Perforated Steel



## NOMINAL DATA

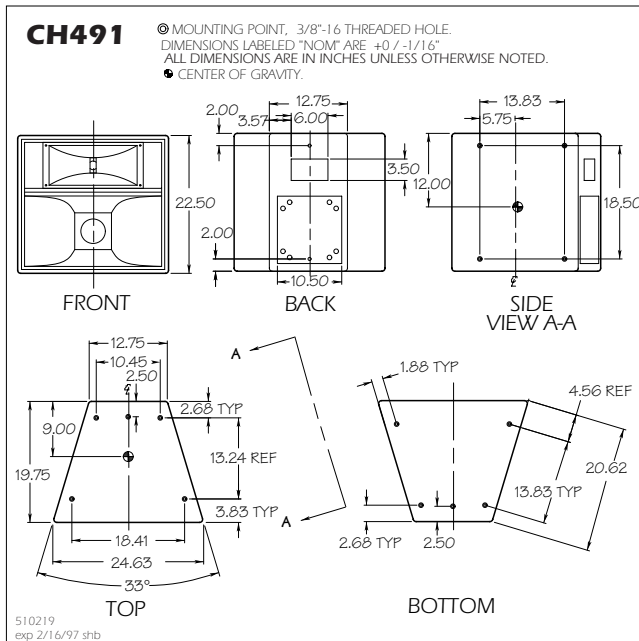
<b>Frequency Response (Hz)</b>	$\pm 3$ dB	200Hz to 15kHz
	-10 dB	125Hz
<b>Axial Sensitivity (dB SPL/1 Watt/1m)</b>	105	
	<b>Impedance (Ohms)</b>	
		8
<b>Power Handling (Watts)</b>	<b>Calculated Maximum Output (dB SPL, @ 1m)</b>	
	AES Standard	300
		Peak 135.8
		Long term 129.8
<b>Nominal Coverage Angle / -6 dB points (degrees)</b>	<b>Dimensions</b>	
	Horizontal	90
	Vertical	45
		<b>inches millimeters</b>
		Height 22.5 572
		Width 24.63 626
		Depth 19.75 502
		Trapezoid Angle 16.5 degrees per side
<b>Weights</b>	<b>Weights</b>	
	Net Weight	100 45.5
	Shipping Weight	110 50.1





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## DIMENSIONAL DRAWING



## SERVICE ITEMS

<b>MF: Complete Cone Driver</b>	EAW Part No. 804021
<b>HF: Complete Compression Driver/Tweeter</b>	EAW Part No. 803006
<b>Filter/Crossover Network: Complete Assembly</b>	EAW Part No. 225060

## ARCHITECTURAL SPECIFICATIONS

The passive mid/high loudspeaker systems shall incorporate a 10-in MF transducer and 1-in exit compression driver HF transducer.

The MF driver shall be loaded into a constant horizontal coverage horn constructed of 3mm birch plywood reinforced with high density polyurethane foam. The MF horn shall incorporate a phase/displacement plug. The HF driver shall be loaded on a constant directivity horn with a nominal coverage pattern of 90° (h) x 45° (v). An internal passive filter network shall provide fourth order acoustical crossover and system equalization.

System frequency response shall vary no more than ±3 dB from 200 Hz to 15 kHz measured on axis. The loudspeaker shall produce a Sound Pressure Level (SPL) of 105 dB SPL on axis at 1 meter with a power input of 1 Watt, and shall be capable of producing a peak output of 135.8 SPL on axis at 1 meter. The loudspeaker shall handle 300 Watts of amplifier power (AES Standard) and shall have a nominal impedance of 8 Ohms.

The loudspeaker enclosure shall be trapezoidal in shape. It shall be constructed of 15mm thickness void-free cross-grain-laminated Baltic birch plywood and shall employ extensive internal bracing. It shall be finished in black catalyzed polyurethane. Input connectors shall be 4-terminal barrier strip and 1x Neutrik NL4 Speakon. A total of twenty 3/8"-16 threaded mounting/suspension points (5 each on top and bottom, 4 per side, 2 on rear) shall be provided. The front of the loudspeaker shall be covered with a vinyl coated perforated steel grill.

The mid/high loudspeaker shall be the EAW model CH491.